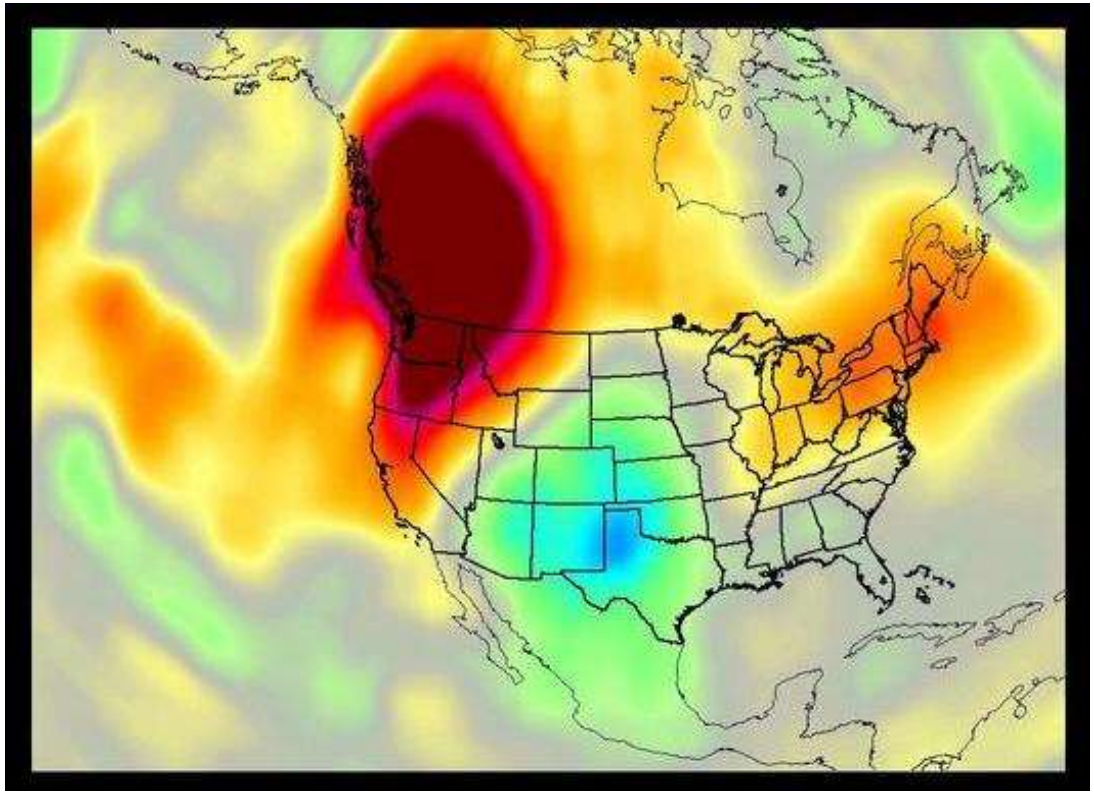
Extreme Heat & Wildfire Smoke: Essential Tools for Preparation and Protection

April 27, 2023



Vancouver Coastal Health

BCNPHA
BC Non-Profit Housing Association

Aboriginal Housing Management Association
Celebrating 25 Years

AWAC

BC HOUSING

Thank-you to our BCNPHA Education Partners

Aboriginal Housing Management Association
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encasa

BC HOUSING

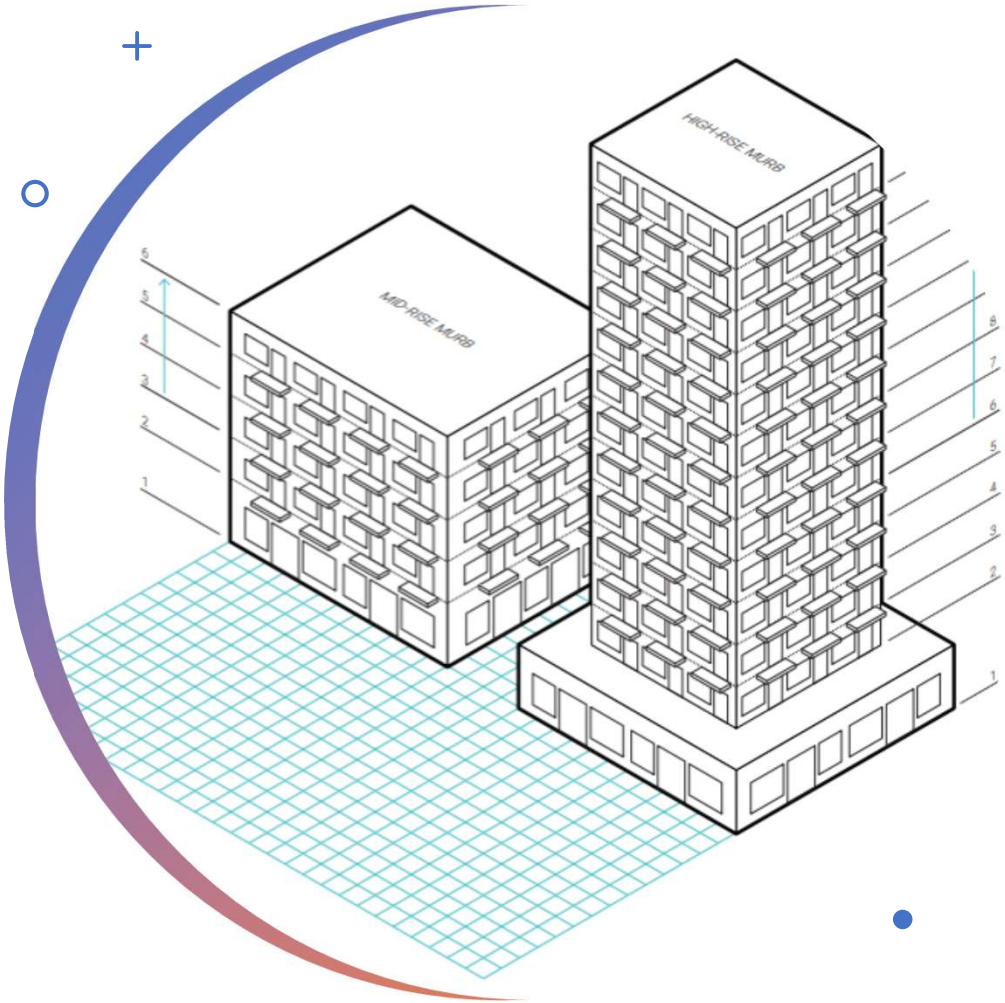
MARSH

Community Housing Transformation Centre
Centre de transformation du logement communautaire

Vancity
Make Good Money.™

Outline

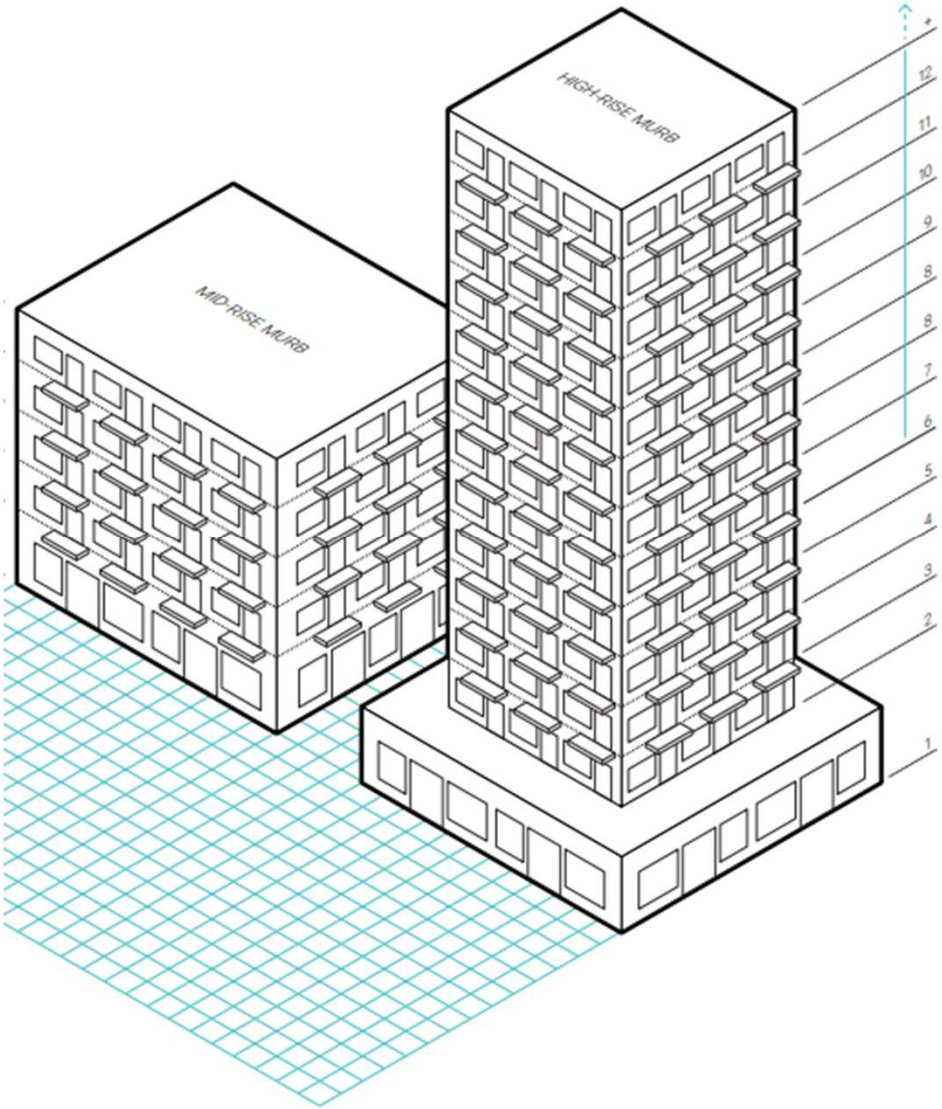
1. Introduction	• Welcome / logistics	Jackie Kanyuk, BCNPHA
2. Inside the building	• Building overheating, poor IAQ	Jackie Kanyuk, BCNPHA
3. Health Reporting	• Effects of 2022 Heat/Smoke Impacts	Dr. Michael Schwandt, VCH
4. Indigenous Led Initiative	• Highlights	Kaila Wong, AHMA
5. Homelessness Services	• Considerations	Jay Hauser, AWAC Community Services
6. Supporting Vulnerable Populations	• Performing Wellness Checks	Maricar Angeles, BC Housing
7. Next Steps	• Some tools and Resources	Corrina Hayden, BC Housing
8. Breakout rooms	• Facilitated discussion	
9. Wrap up	• Thank you	Jackie Kanyuk, BCNPHA

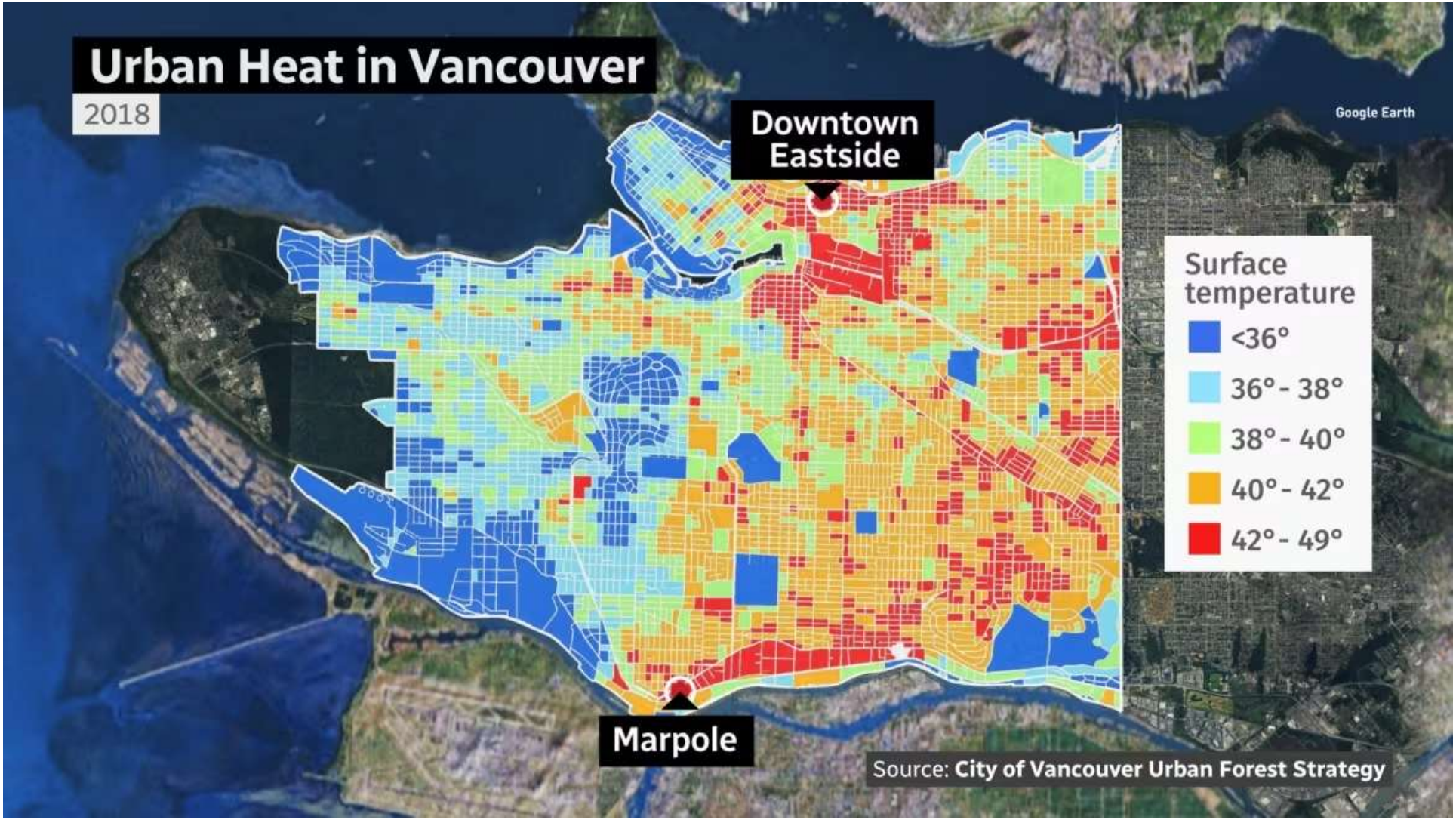


Building systems

Physical environment

- Neighbourhood
- Microclimate
- Related assets




Urban Heat in Vancouver
2018
Downtown Eastside
Google Earth
Surface temperature
<36°
36° - 38°
38° - 40°
40° - 42°
42° - 49°
Marpole
Source: City of Vancouver Urban Forest Strategy

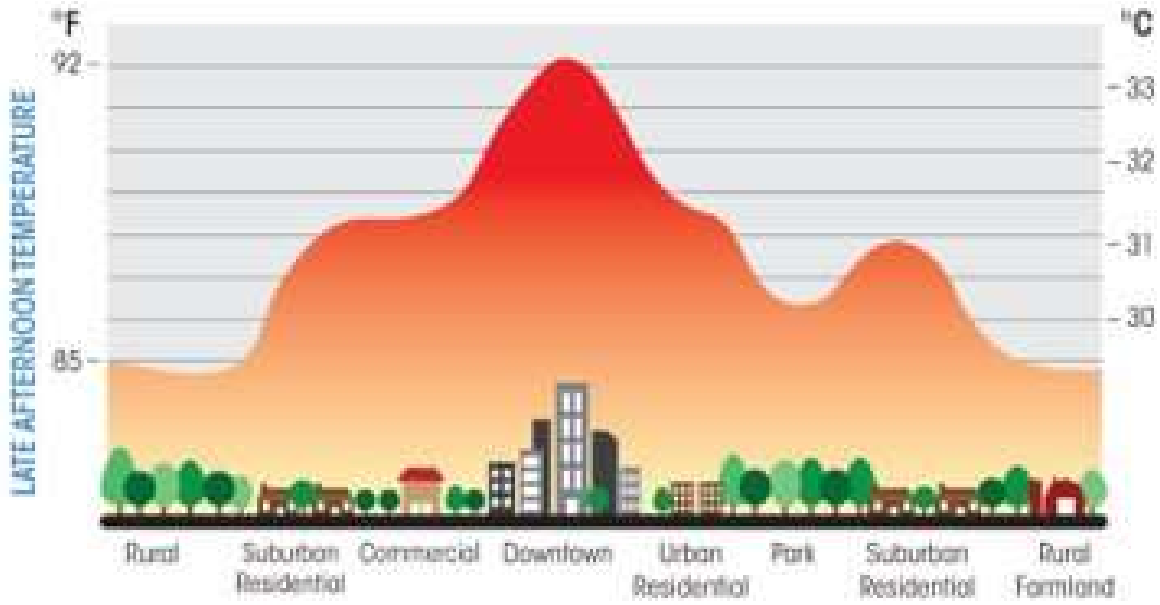
Vancouver's Shady Inequality

The 'heat dome' reminds us, once again, how access to cooling urban forests is concentrated in wealthier areas.

The Tyee, Jun 29, 2021

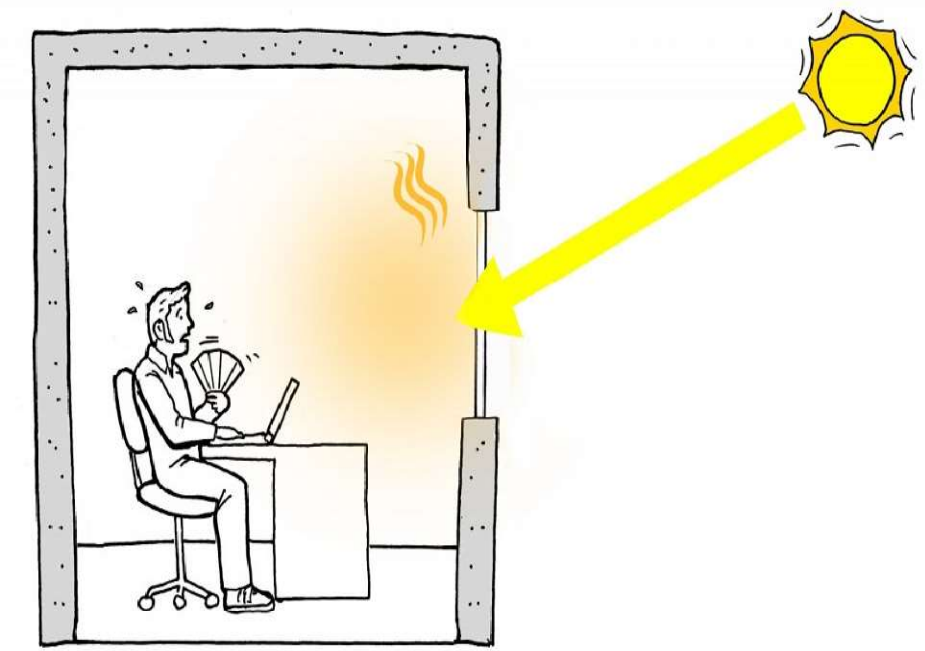
Exterior heat gains: Urban heat island

- Sun heats up outside surfaces and increases air temperatures around the building
- Areas with low vegetation heat up faster than areas with vegetation and tree cover



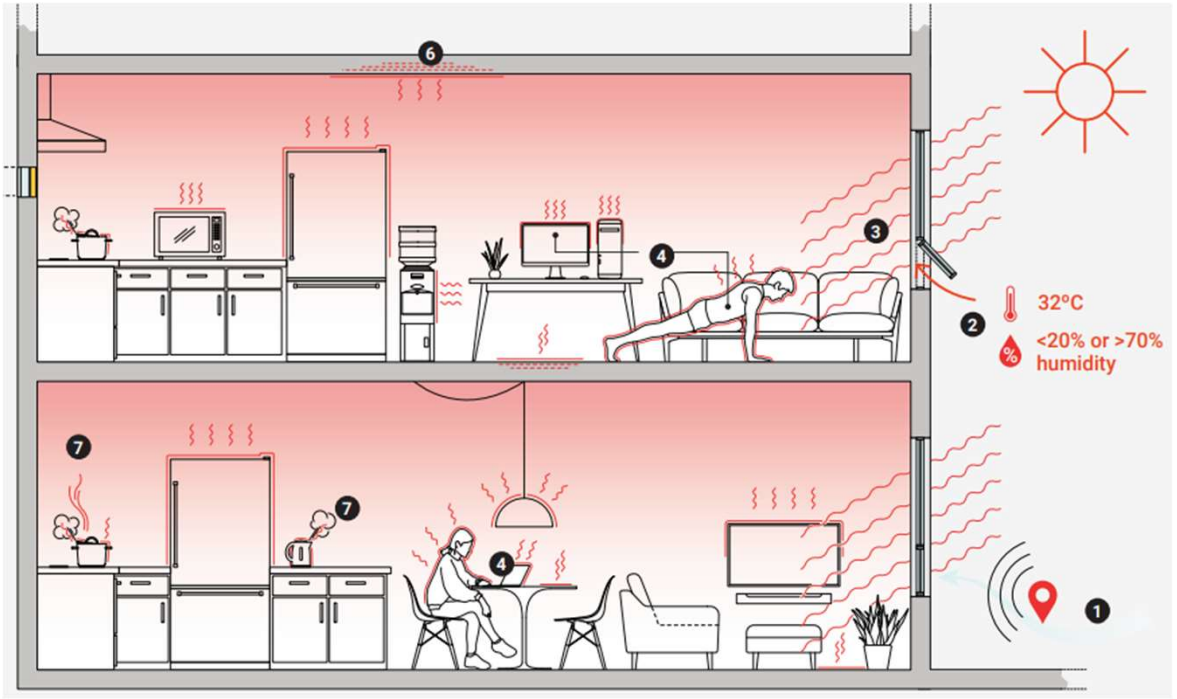
Exterior heat gains: Solar heat

- Once heat from sunlight gets in, it can be difficult for heat to escape, especially amid multi day high-pressure systems such as a heat dome
- Up to half of thermal gain can stem from windows



Interior heat gains:

- Cooking
- Plug loads (eg. appliances)
- Inefficient hot water systems
- Poor ventilation/not exhausting enough hot air outside

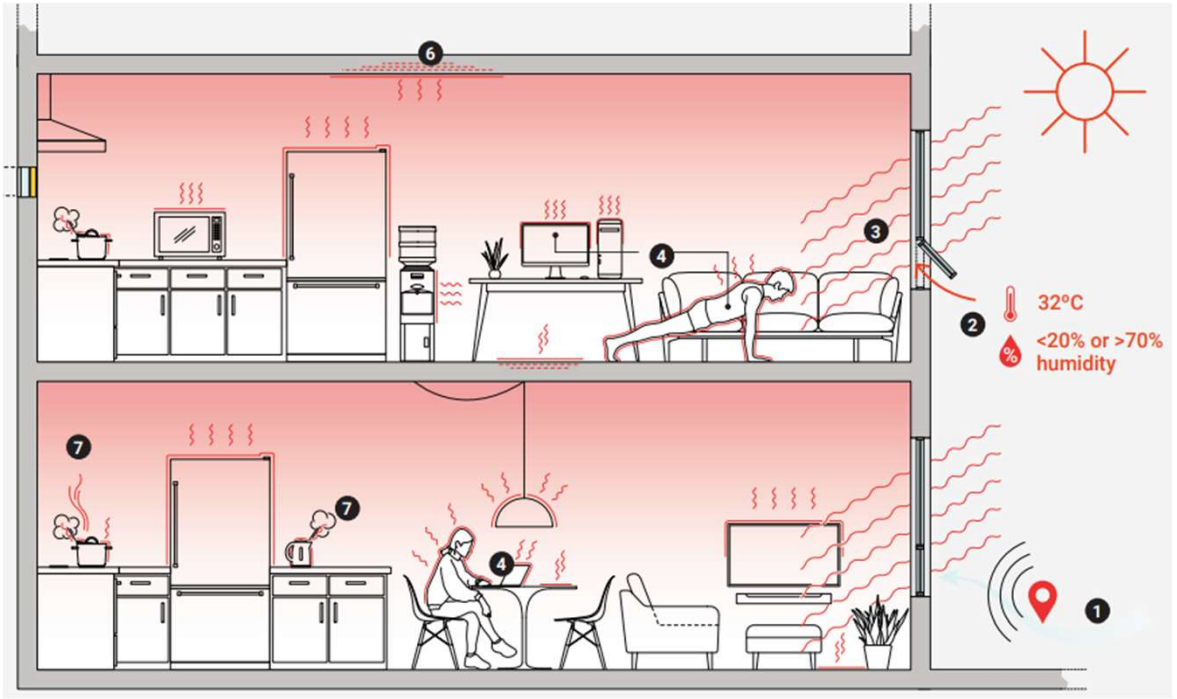


Acceptable interior conditions

- Temperatures between 25-27 deg C

(77-80 degrees F) with 40-60% relative humidity

- Higher temperatures ok for some for short periods
- Prolonged conditions with no break, people will feel overheated
- Over 31 degrees C is unsafe



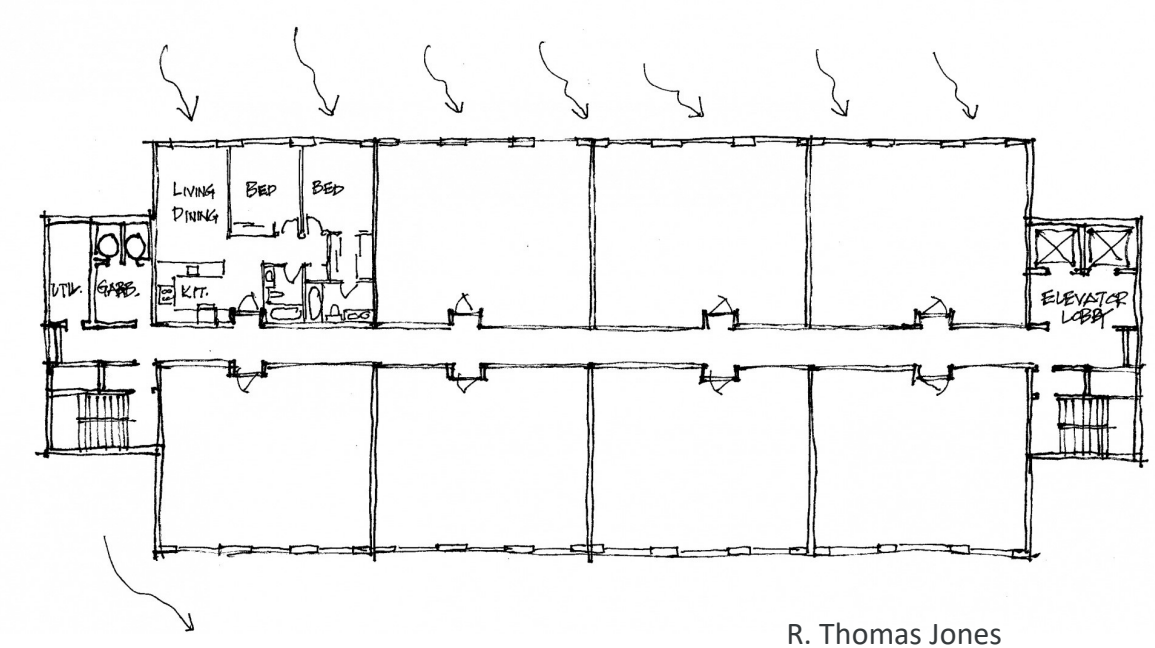
New Construction

Existing buildings

Elements contributing to overheating

Architectural

- Double loaded corridors (single-sided ventilation)
- Thermal mass (absorbs heat)
- Little to no solar shading (radiation)
- Limited window operation
- Poor quality windows with no solar heat gain coefficient coatings (low e coatings)

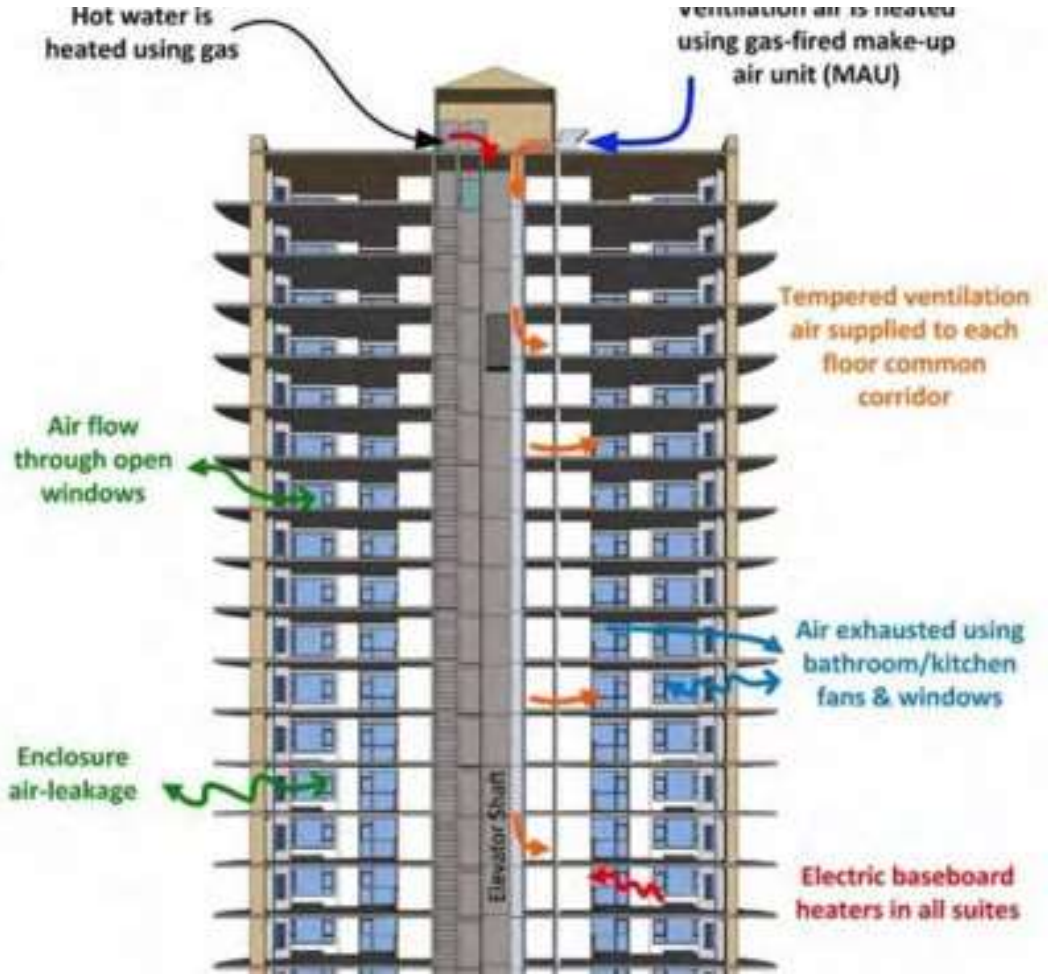


R. Thomas Jones

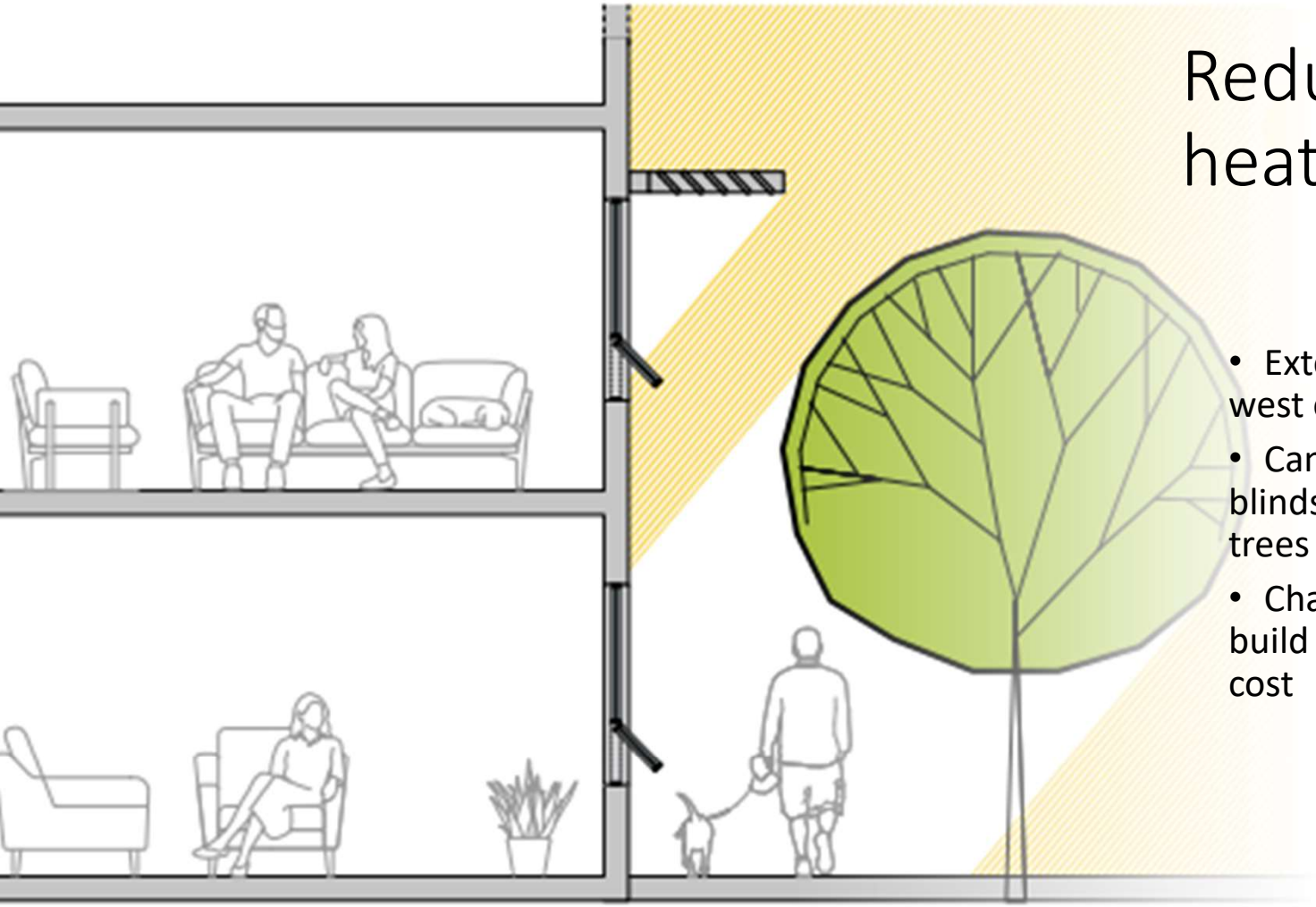
Building elements contributing to overheating

Mechanical

- No ceiling fans, low ceiling height
- No in-suite ventilation (pressurized corridor)
- No central cooling



Reduce exterior heat gains

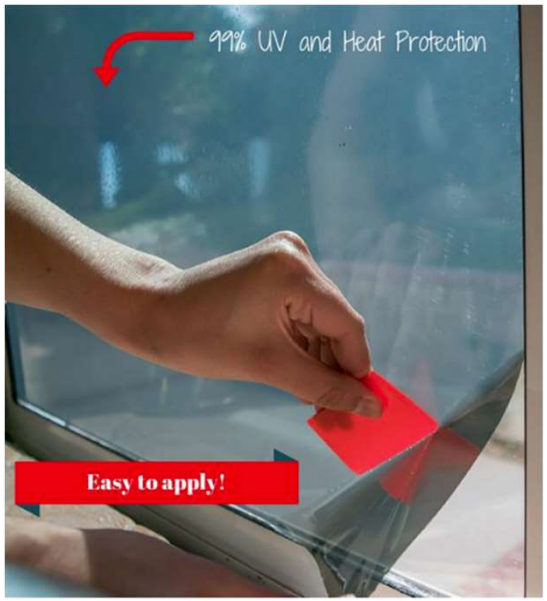


MMER SOUTH/WEST FACING FACADE

- Exterior shading on south/ west elevations
- Canopies, awnings, shutters, blinds, planted trellis or deciduous trees
- Challenges/complexities with post-build installation, permitting and cost

Reduce exterior solar heat gains

- Use opaque shades, blinds, window film or any means to block sun



Reduce interior heat gains

- Ensure heating equipment is turned off

- Example: In-floor radiant heating pipes providing heat on July 5, 2022 causing internal hallway temperature of 26.2 degrees C

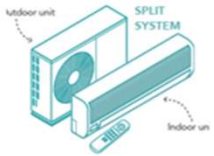
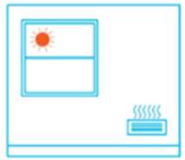
Reduce interior heat gains

- Insulate DHW pipes
- Example: uninsulated pipes radiating heat into mechanical room, which can heat nearby rooms and floors

Mechanical upgrades

- Central cooling
- In-suite ventilation
- In-suite cooling

Strategies for Cooling: Mechanical

Type of Cooling	 Personal Fan Pedestal/Tower	 Portable Air Conditioners	Window Mounted Air Conditioners	 Packaged Terminal Air Conditioners (PTACs)	 Heat Pumps	 Central Air Conditioning
Cost (Purchase and Maintenance)	$$	$$$	$$$	$$$$	$$$$	$$$$$

Efficiency

Least efficient → Most efficient

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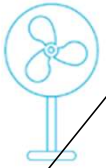
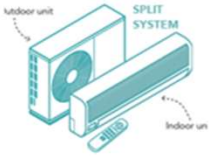
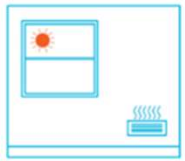
Filtration

- Go with the highest level of filtration that can fit and function in your system

Type of Cooling	 Personal Fan Pedestal/Tower	 Portable Air Conditioners	Window Mounted Air Conditioners	 Packaged Terminal Air Conditioners (PTACs)	 Heat Pumps	 Central Air Conditioning
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Efficiency

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BC HOUSING

Strategies for Cooling: Mechanical

Type of Cooling	Personal Fan Pedestal/Tower	Portable Air Conditioners	Window Mounted Air Conditioners	Packaged Terminal Air Conditioners (PTACs)	Heat Pumps	Central Air Conditioning
Cost (Purchase and Maintenance)	$$	$$$	$$$	$$$$	$$$$	$$$$$

Efficiency →

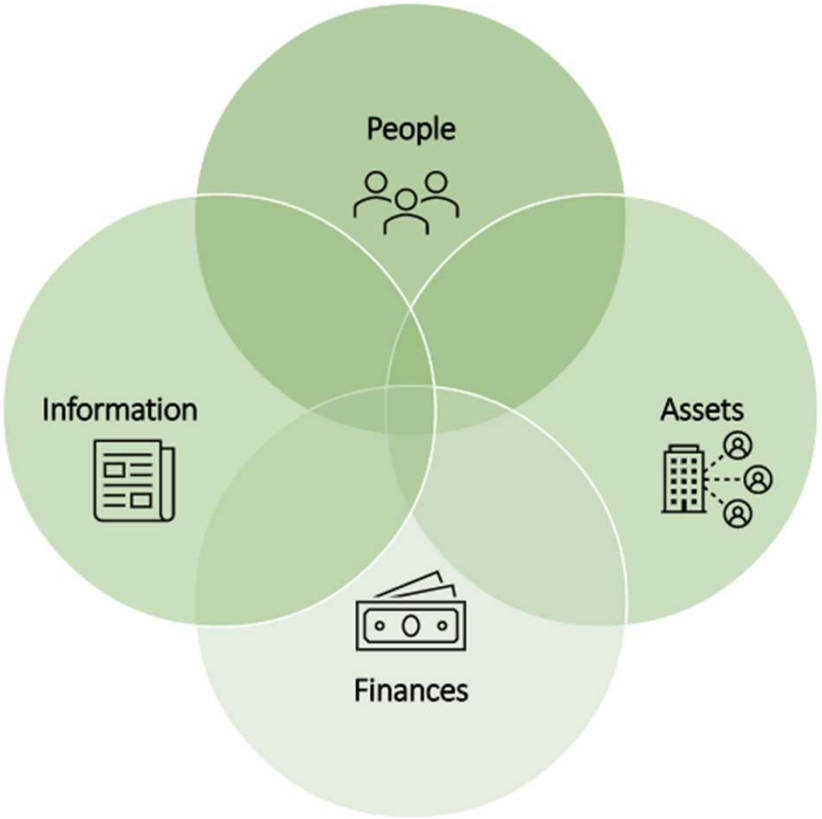
Least efficient — Most efficient

Before you do anything…

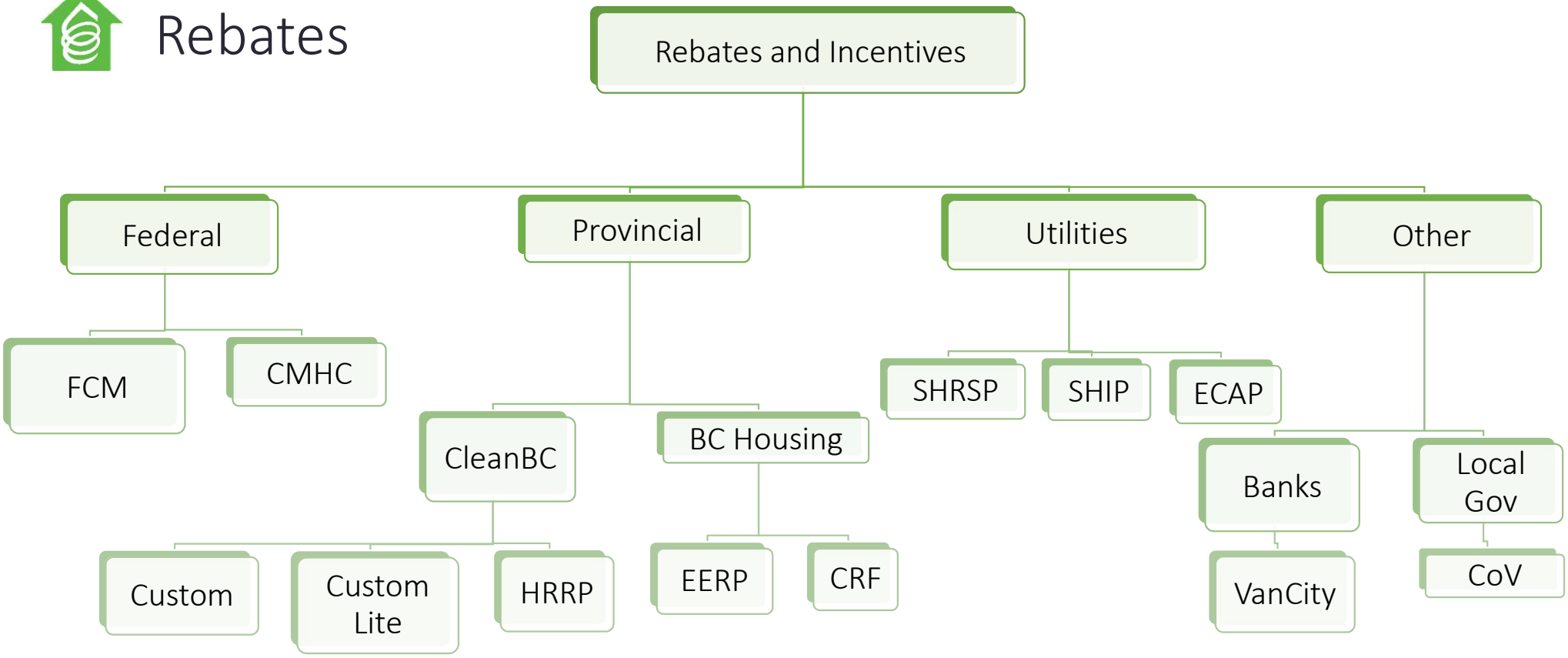
BC HOUSING

Whole building approach is best

- Conduct an energy study to identify:
- Limitations of site, building type, electrical capacity, etc.
- Opportunities with aging equipment:
  - Could replace MAU with heat pump for corridor cooling
  - HVAC upgrade with centralized cooling when repiping or adding sprinklers
- Rebate programs to improve business cases



Rebates



Contact us for help with all of these: energy@bcnphca.ca

Energy Study rebates for social housing

- 9+ unit MURBs
- Up to $8k for energy study
- Up to $11k for engineering implementation
- Various energy conservation measures
- Contact energy@bcnpha.ca

Thank you!

Jackie Kanyuk | jackie@bcnpha.ca

For audits | energy@bcnpha.ca

BCNPHA
BC Non-Profit Housing Association

References and thanks to:
Marianne Touche, University of Toronto
Alex Chou, AME Group
Morrison Hershfield
BC Housing

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 27, 2023

With acknowledgements to:
Dr. Sarah Henderson, Emily Peterson, Meghan Straight, Breanna Gregory, Dr. Emily Newhouse

Vancouver CoastalHealth

We wish to acknowledge that the land on which we gather is the traditional and unceded territory of the Coast Salish Peoples, including the Musqueam, Squamish, and Tsleil-Waututh Nations.

Vancouver Coastal Health is committed to delivering exceptional care to 1.2 million people, including the First Nations, Métis and Inuit in our region, within the traditional territories of the Heiltsuk, Kitasoo-Xai'xais, Lil'wat, Musqueam, N'Quatqua, Nuxalk, Samahquam, shíshálh, Skatin, Squamish, Tla'amin, Tsleil-Waututh, Wuikinuxv, and Xa'xtsa.

Outline

- Heat and wildfire smoke events and related illness
- Susceptibility to health effects of heat and wildfire smoke
- Planning and action for extreme heat and wildfire smoke
- Resources

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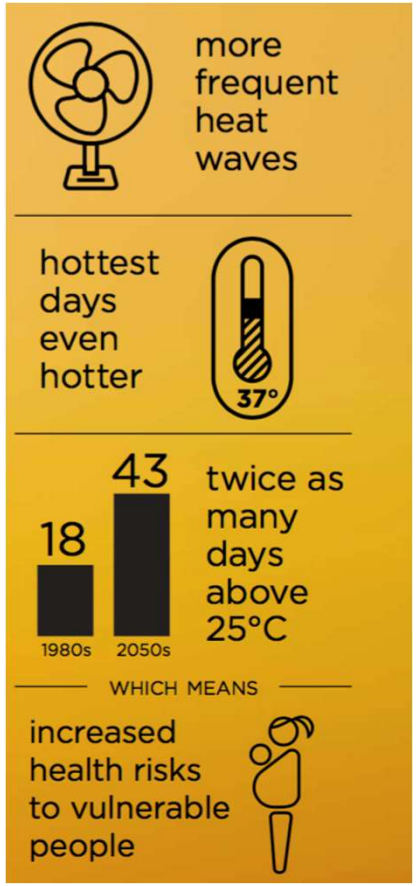
Climate change: Expected local impacts

- 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)



Source: City of Vancouver, Pacific Climate Impacts Consortium

EXTREME HEAT

Some people are impacted by the heat more than others. People over 60, people who live alone, people with certain health conditions or disabilities, people who use substances, people on certain medications, people who are pregnant, infants and young children may need extra care.

HEAT EXHAUSTION SYMPTOMS

- Skin rash
- Heavy sweating
- Dizziness
- 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, given plenty of water to drink, and cooled down with water applied to the skin (see "Cool Off" section below)"

HEAT STROKE SYMPTOMS

- High body temperature
- Fainting or decreased consciousness
- Confusion
- Lack of coordination
- Very hot and red skin

Seek medical attention, call 911 if necessary. Submerge some or all of the body in cool water, remove clothes and apply wet towels.

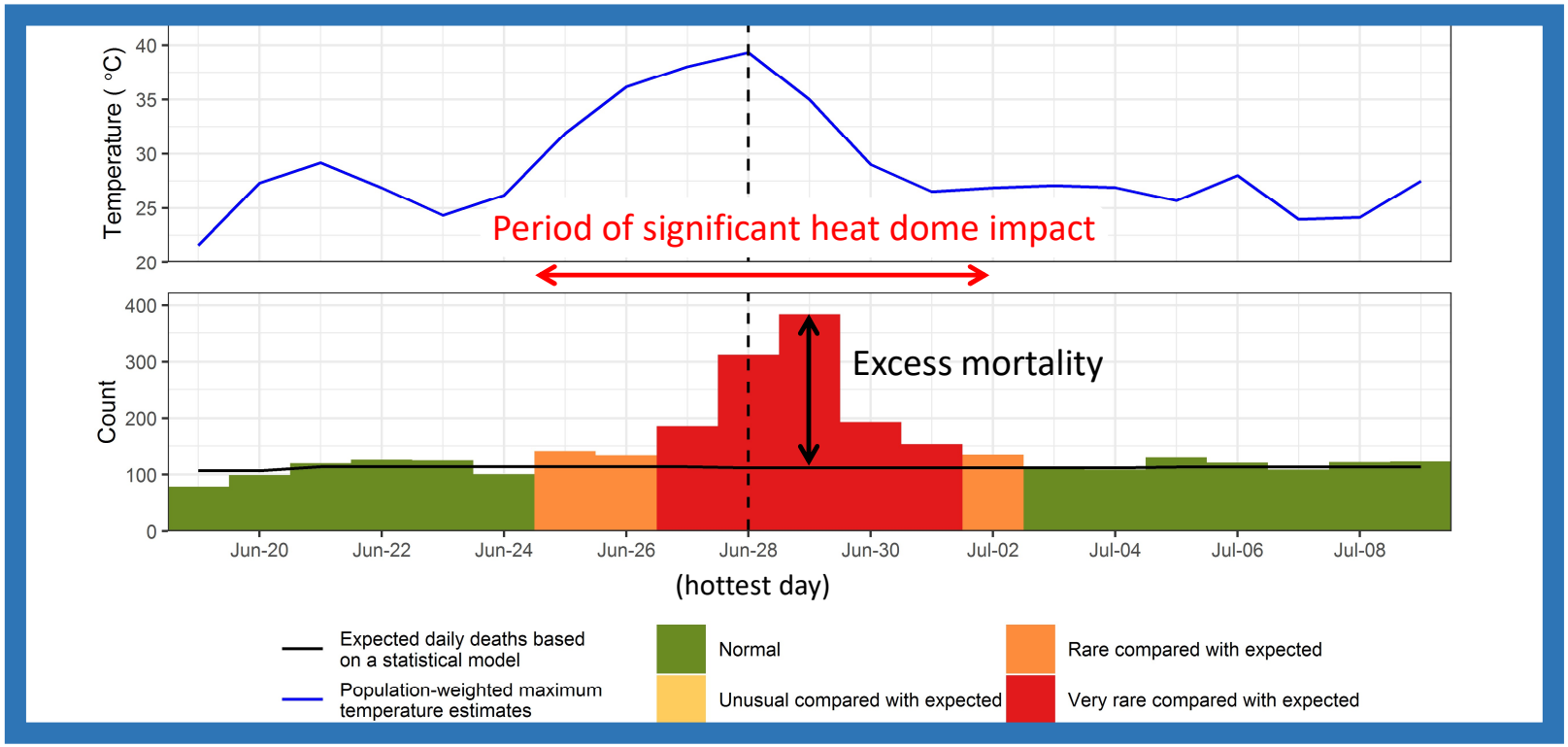
vch.ca/heat

Coroner's report on heat wave that led to 619 deaths says B.C. needs to be better prepared for what's next

JUSTINE HUNTER > AND **ANDREA WOO** >
VICTORIA, VANCOUVER
PUBLISHED JUNE 7, 2022
UPDATED JUNE 8, 2022

The Globe and Mail

2021 BC Heat Dome:
BCCDC estimates **740** *excess deaths* from June 25 – July 2



Source: BC Centre for Disease Control

WILDFIRE SMOKE

Different people respond differently to smoke. People with chronic conditions, people who are pregnant, infants and small children, older adults and people with respiratory infections may need extra care.

SYMPTOMS

- Sore throat
- Eye irritation
- Runny nose
- Mild cough
- Phlegm/mucous production
- Wheezy breathing
- Headaches

MORE SEVERE SYMPTOMS

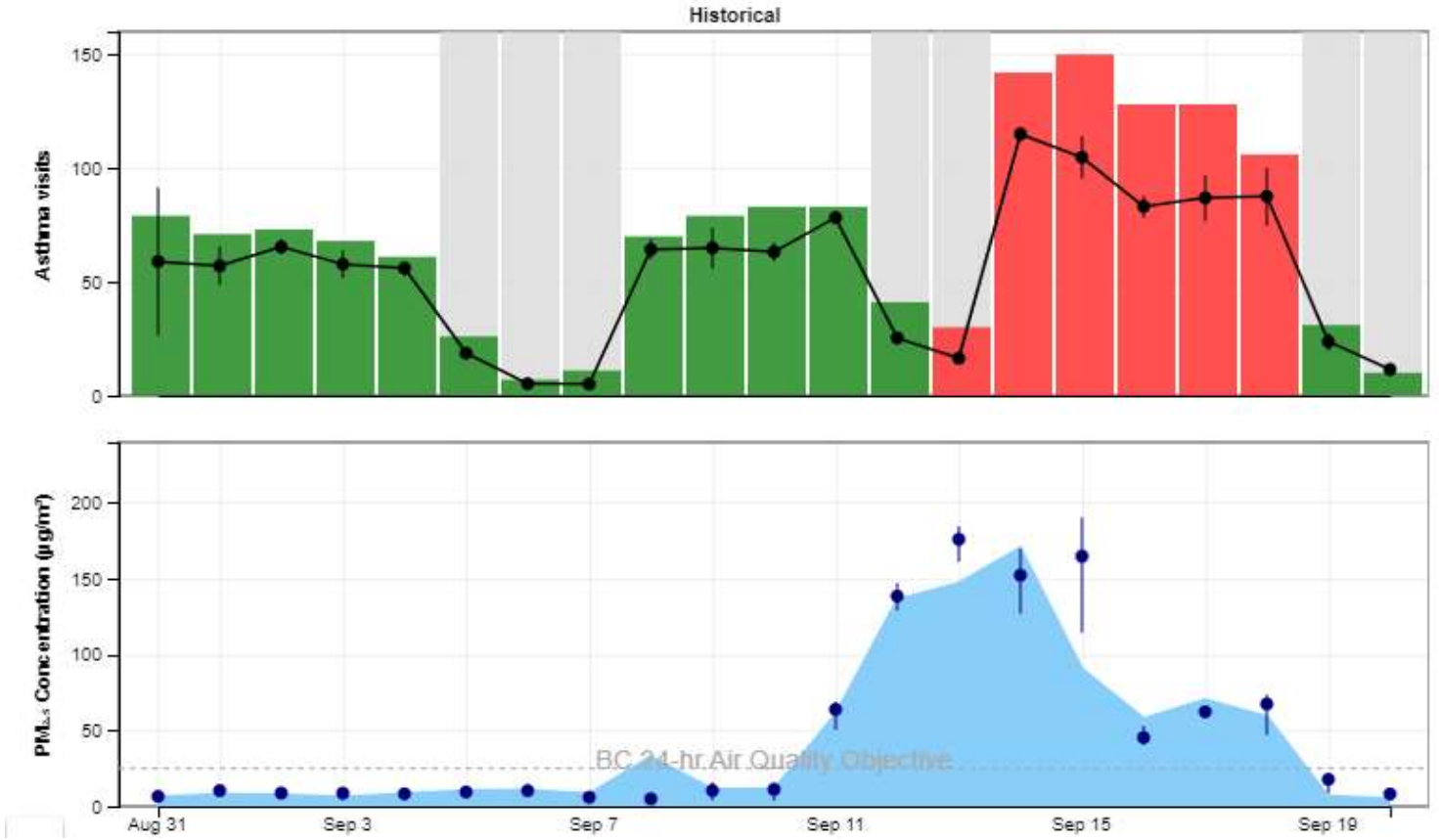
- Shortness of breath
- Severe cough
- Dizziness
- Chest pain
- Heart palpitations

Anyone with these symptoms needs medical attention

vch.ca/wildfiresmoke

Wildfires and asthma

Physician visits for asthma, Vancouver 2021



Source: BC Centre for Disease Control

Outline

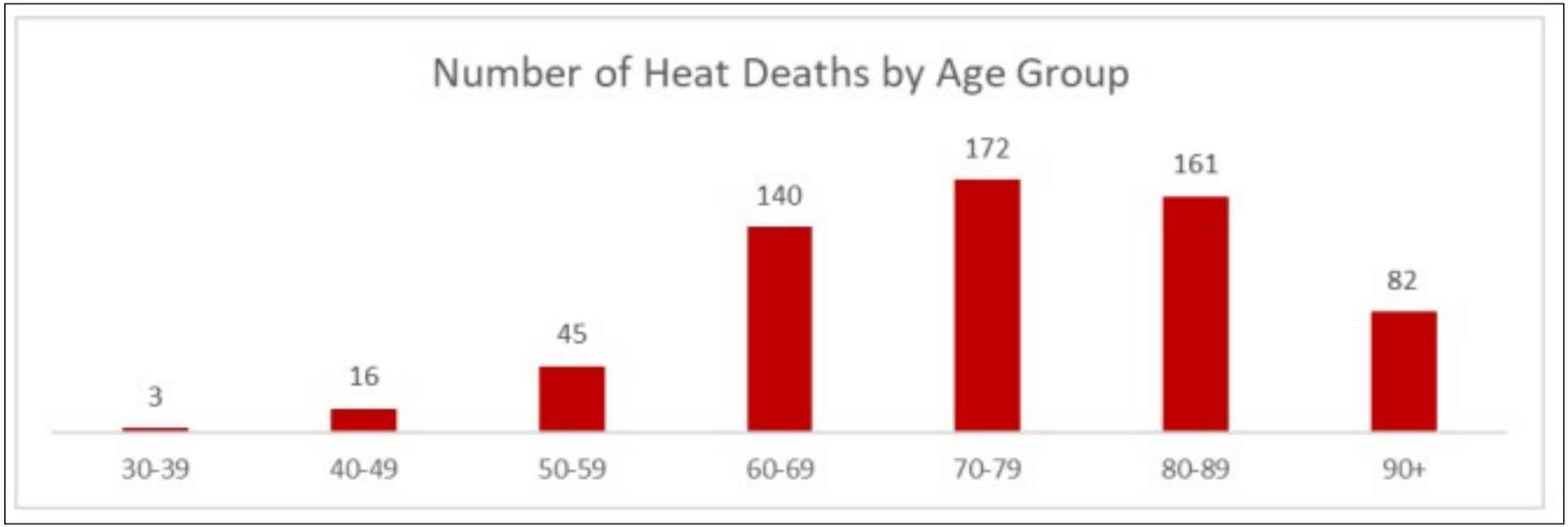
- Heat and wildfire smoke events and related illness
- Susceptibility to health effects of heat and wildfire smoke
  - Physiological
  - Social
  - Environmental
- Planning and action for extreme heat and wildfire smoke
- Resources

Extreme Heat and Human Mortality: A Review of Heat-Related Deaths in B.C. in Summer 2021

Report to the Chief Coroner of British Columbia

Release Date: June 7, 2022

Age and health risk, 2021 BC heat dome



Source: BC Coroners Service

Although this report lists many statistics, each data point is an individual life. The people who died were people who, for myriad reasons, were overcome by the effects of extreme heat. Most lacked access to cooler buildings or air-conditioned spaces. Many were older adults who had chronic health conditions. Many communicated that they were feeling unwell and were having difficulty managing in the hot temperatures. Many were also connected to health services and other resources prior to their death.

The BCCS investigative findings showed that elderly, socially-isolated people were at a higher risk of heat-related mortality. Many of the deceased lived in single family dwellings. Building practices such as adding suites to homes could potentially reduce social isolation.

Data matched with the Ministry of Health's Chronic Disease Registry found that 91% of decedents were assigned to at least one chronic disease registry. The most common registry that decedents belonged to was hypertension (71%), mood and anxiety disorders (60%), depression (54%), diabetes (37%), and osteoarthritis (33%) (see Appendix 2, Figure 4). Compared with the B.C. population 65 years and over, a higher percentage of decedents were on schizophrenia, substance use disorder, epilepsy, chronic obstructive pulmonary disease, depression, asthma, mood and anxiety disorders, and diabetes registries.

Heat-related mortality during the 2021 BC Heat Dome

Risk factors

- Old age
- Deprivation
- Isolation
- Mental illness
- Substance use
- Pre-existing illnesses

Protective factors

- Privilege
- Neighbourhood green space
- Admission to health care facility (e.g. long-term care homes)

BC Centre for Disease Control

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 (NB: healthcare providers can provide individual advice)
  - 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" planning:
Health care providers, including pharmacists, can provide individual advice!

Social vulnerability to extreme heat

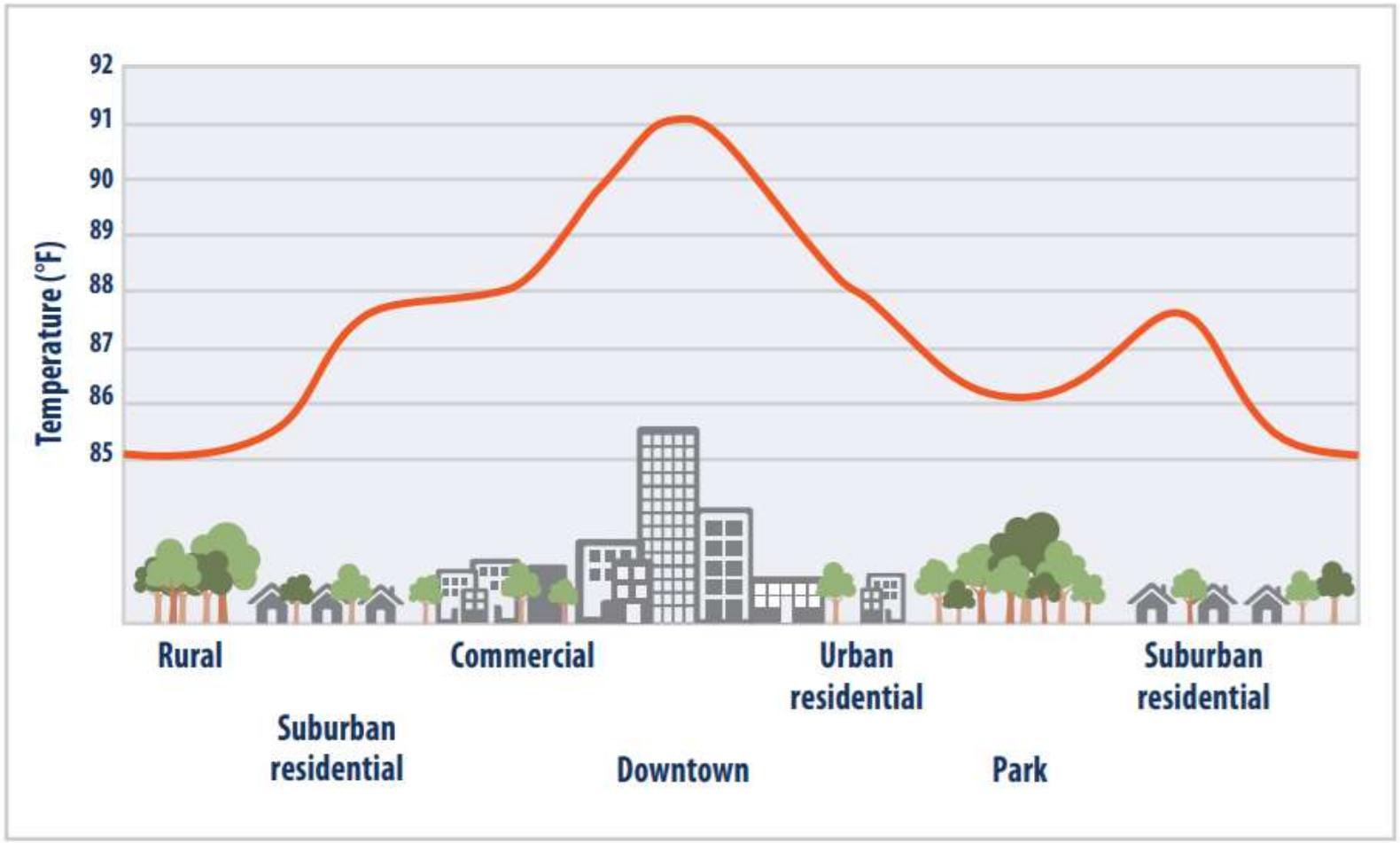
- Reduced access to cooling spaces and other heat mitigation measures (e.g. A/C)
- Social isolation and barriers to reaching help
- *Socially* vulnerable groups may be more likely to live in neighbourhoods with *environmental* vulnerability

Environmental vulnerability to extreme heat

- Sparse vegetation
- Darkly hued roofing and paving materials
- Lack of neighbourhood green space

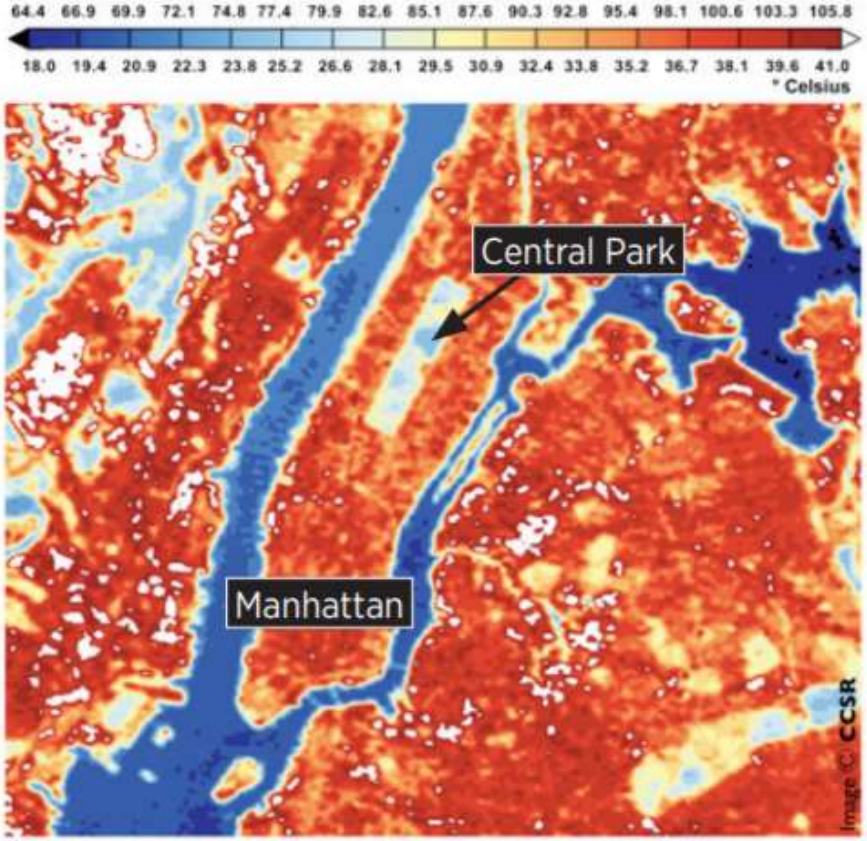
→ Higher heat load in urban areas: “urban heat islands”

Urban Heat Island Profile

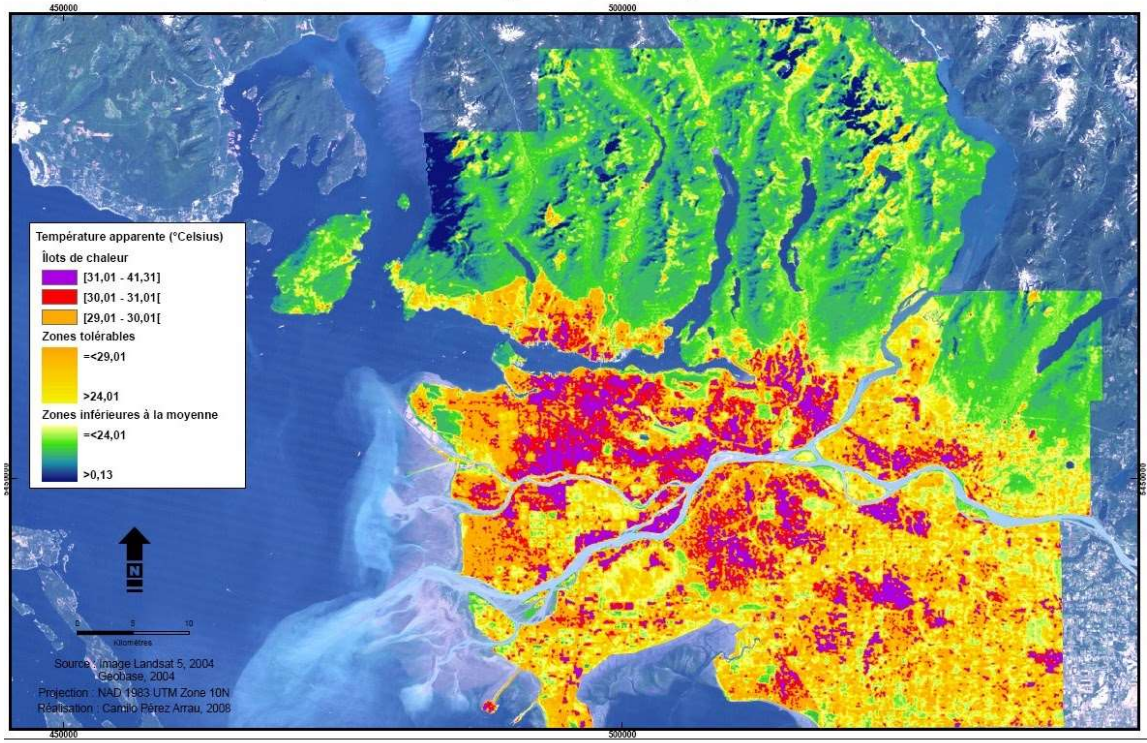


Climate Change and Extreme Heat: What You Can Do To Prepare. **US EPA & CDC, 2016.**

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)



Heat and health: Housing risk factors

- No air conditioning / heat pumps
- Higher floor of building
- Directly under the roof
- South and/or west facing windows
- Large window surface area
- No external window shading
- No evening cross breeze
- Low neighborhood greenness

Protective environments

- ✓ Ventilation, air conditioning
- ✓ Trees and vegetation
- ✓ 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
- People who live in spaces without mechanical ventilation, air filtration systems or portable air cleaners
- People who work or are active outdoors

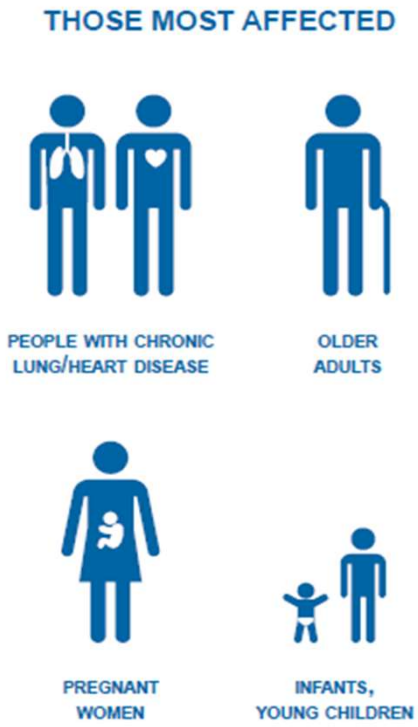


Image source: http://www.bccdc.ca/health-info/prevention-public-health/wildfire-smoke

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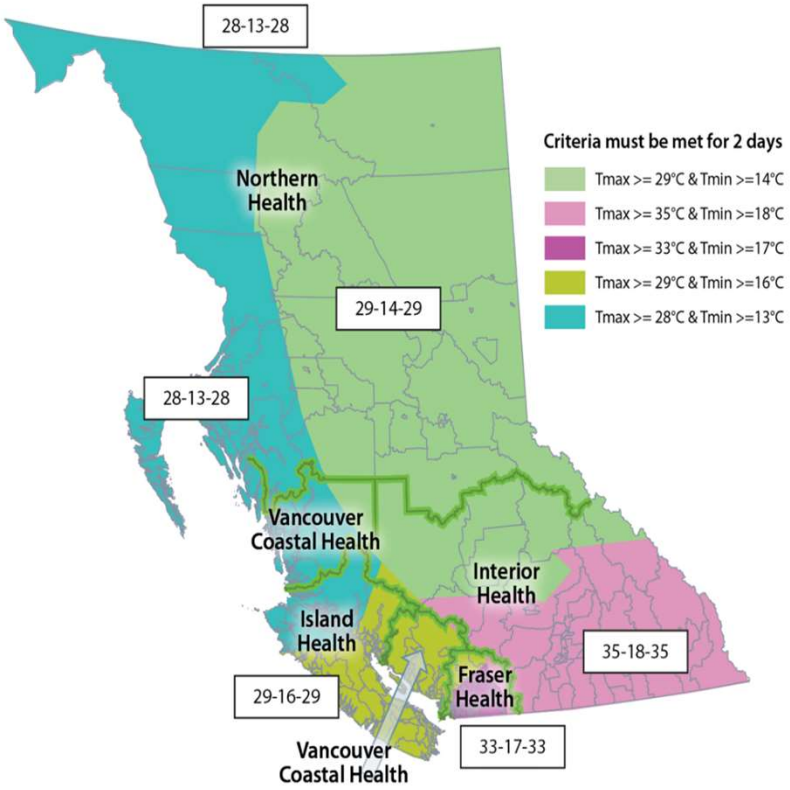
BC Heat Alert Response System (BC HARS)



Alert level	Heat Warning	Extreme Heat Emergency
Public health risk	Moderate (5% increase in mortality)	Very high (20% or more increase in mortality)
Descriptor	Very hot	Dangerously hot
Historic frequency	1-3 per summer season	1-2 per decade
Criteria	Southwest = 29-16-29* Fraser = 33-17-33* Southeast = 35-18-35* Northeast = 29-14-29* Northwest = 28-13-28* * °C (daytime high, nighttime high, daytime high)	Heat warning criteria have been met and forecast indicates that daily highs will increase day-over-day for 3 or more consecutive days

Actions to keep *people* cool

- ☑ Seek cooler spaces
- ☑ Take a cool shower or put part of body in cool water
- ☑ Wear a wet shirt or apply damp towels to skin
- ☑ Drink plenty of water and other liquids
- ☑ Wear loose fitting, light colored breathable clothing
- ☑ Limit physical activity
- ☑ Monitor indoor temperature and watch for symptoms

Actions to help keep *spaces* cool

- ✓ Use A/C or heat pumps
- ✓ Close blinds/shades to block sun
- ✓ Use external window shading and/or external window films
- ✓ Close windows during the day (approx 10am to 8pm) and open windows overnight

Vancouver CoastalHealth

BC Heat Alert and Response System: Key recommendations for NGOs

Pre-season

- Create or review heat response plan
- Organize or participate in forums to discuss collective responses to extreme heat
- Identify and display/share information on extreme heat (e.g. VCH and BC Housing resources)
- Identify clients who may be at high risk for severe illness during extreme heat
- Explore options for temporary cooling spaces and clean air on-site
- Create lists of cooling and cleaner air centres/spaces
- Explore potential options for transportation to cooling

During a *Heat Warning*

- Conduct community outreach, focusing on high-risk populations to raise awareness
- Share local cooling centre information, consider establishing cooling spaces

During a *Extreme Heat Emergency*

- Engage in wellness checks for people at high risk (VCH Heat Check-In Support Framework available)
- Increase community messaging
- Consider expanding hours of temporary cooling spaces

BC Provincial Heat Alert and Response System 2022 (bccdc.ca) – *Recommendations as capacity and funding permits*

Optimizing benefits of cooling spaces

- Well-advertised in advance of hot days
- Longer hours are ideal
  - It can take many hours for susceptible people to cool down
- Welcoming to diverse communities
- Options for pets
- Proximity, familiarity, and transport options
- Outdoor cooling centres are also possibilities

Considering heat and air quality together

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

Notes on fans

- **Fans do not lower core body temperatures – do not rely on a fans as a primary cooling method**

- Do not direct fans directly toward the body when indoor temperatures are very high (over 35°C)

- Use fans strategically to help move cooler air into living spaces overnight.

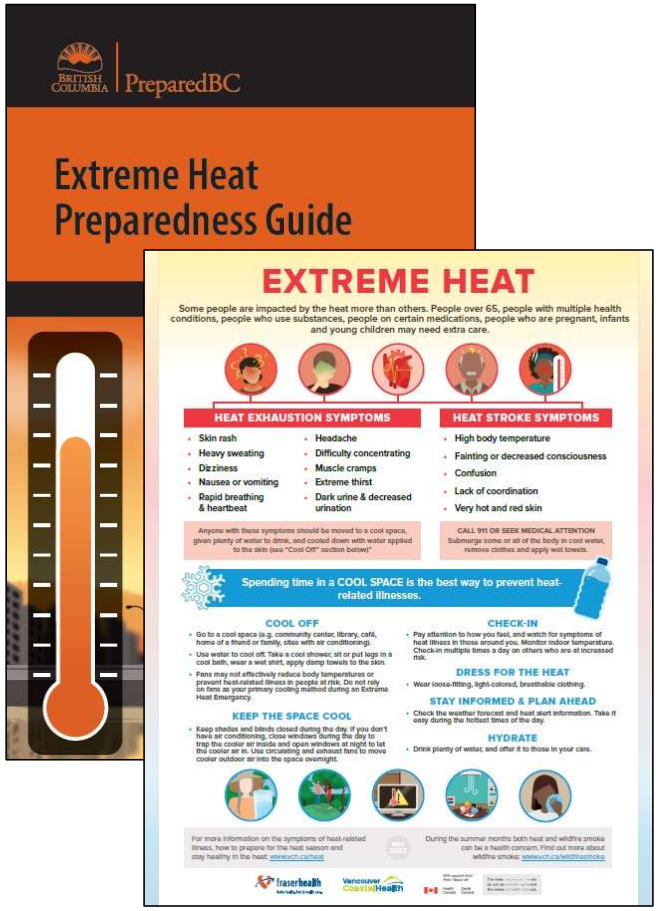
“Right to Cool”:
Safe indoor temperature policy advocacy

- Policy mechanisms:
  - National (e.g. National Building Code)
  - Provincial (e.g. Residential Tenancy Act, BC Building Code)
  - Municipal (e.g. Vancouver Building By-law)
- Different tenancy and ownership types:
  - Market home ownership: individual, stratas
  - Market rentals: purpose-built rental, privately owned
  - Social housing, supported housing, shelter
- Building factors:
  - New vs existing builds
  - Number of units

Outline

- Heat and wildfire smoke events and related illness
- Susceptibility to health effects of heat and wildfire smoke
- Planning and action for extreme heat and wildfire smoke
- Resources

Resources: Extreme Heat



PreparedBC Guide: preparedbc.ca/extremeheat

- Advice for creating a heat plan, and actions for heat events. For example: Home preparation, awareness of neighbourhood cool spaces, identifying and checking on an 'extreme heat buddy'

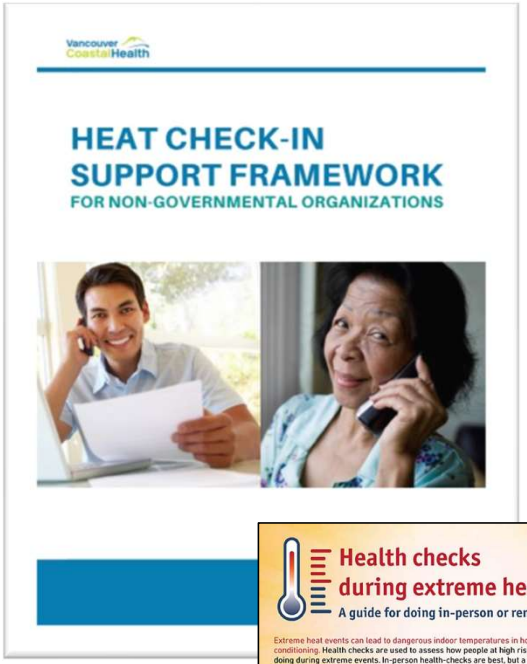
Vancouver Coastal Health materials: vch.ca/heat

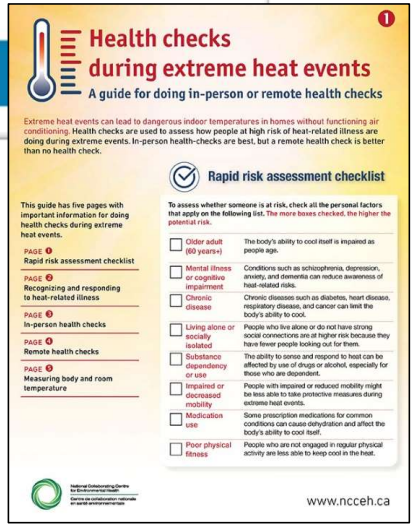
- Information on symptoms of heat exhaustion and heat stroke, risk factors, actions for community members
- Guidance for NGOs conducting community wellness checks
- Advice for operators of rental housing buildings and licensed care facilities

Wellness check tools

- **VCH NGO Heat Check-In Support Framework:**
  - Framework for organizational check-in procedures and answers to common questions
  - Identifying heat-vulnerable people and spaces
  - Mitigation and emergency actions for someone suffering from heat-related illness
  - Tools to carry for in-person wellness checks
  - vch.ca/heat

- **NCCEH Heat Check-In Guide:**
  - Instructions for individuals without health training on how to conduct a check-in
  - bit.ly/ncceh-heat-tool





Resources: Wildfire smoke

- **BC Centre for Disease Control materials:**
  http://www.bccdc.ca/health-info/prevention-public-health/wildfire-smoke
- **Vancouver Coastal Health materials:** vch.ca/wildfiresmoke
  - Information on health effects and symptoms, risk factors, actions for community members
  - Information on air quality monitoring tools and advisories

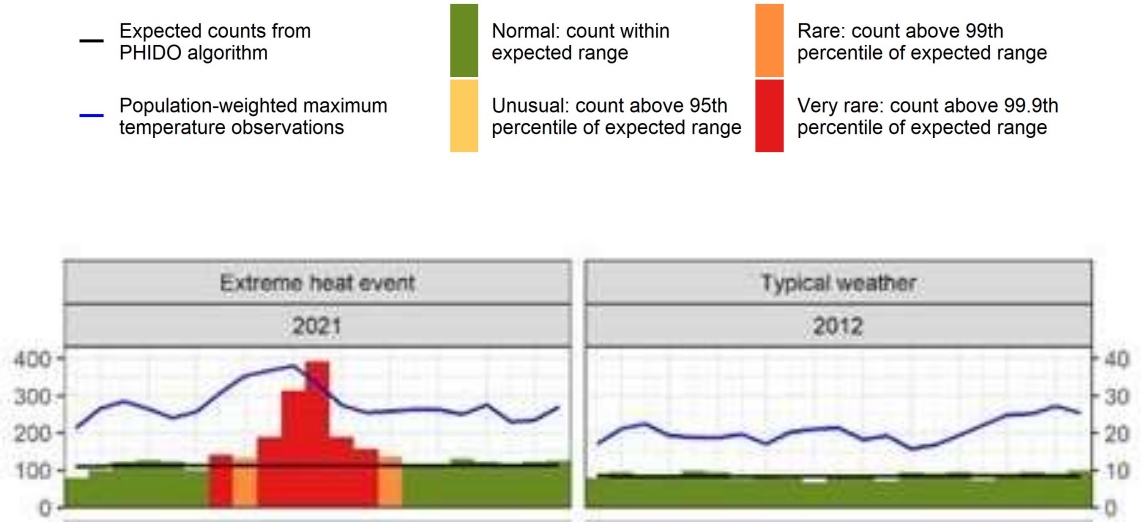
The BCCDC has created fact sheets with information about wildfire smoke and ts health impacts, including information on how to prepare for wildfire season. You can view and download the fact sheets here:

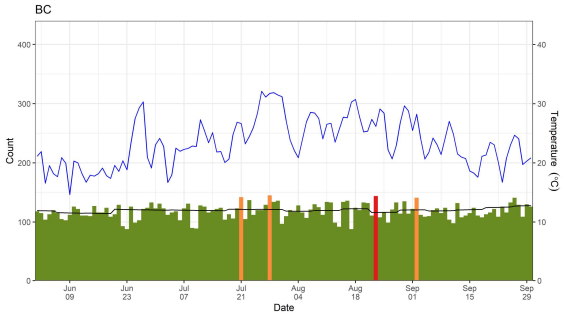
- Health effects of wildfire smoke
- How to prepare for the wildfire smok
- Portable air cleaners for wildfire smo
- Wildfire smoke and air quality
- The composition of wildfire smoke
- Wildfire smoke and outdoor exercise
- Wildfire smoke and Air Quality Healt
- Home-made box air fan filters
- Face masks for wildfire smoke
- Wildfire smoke during extreme heat
- Translated Content

Excess Mortality: Summers compared

Heat Dome 2021 and Typical Year (2012)

June - September 2022





Source: BC Centre for Disease Control

Thank you!

Contact us:

healthy.environments@vch.ca

Vancouver CoastalHealth

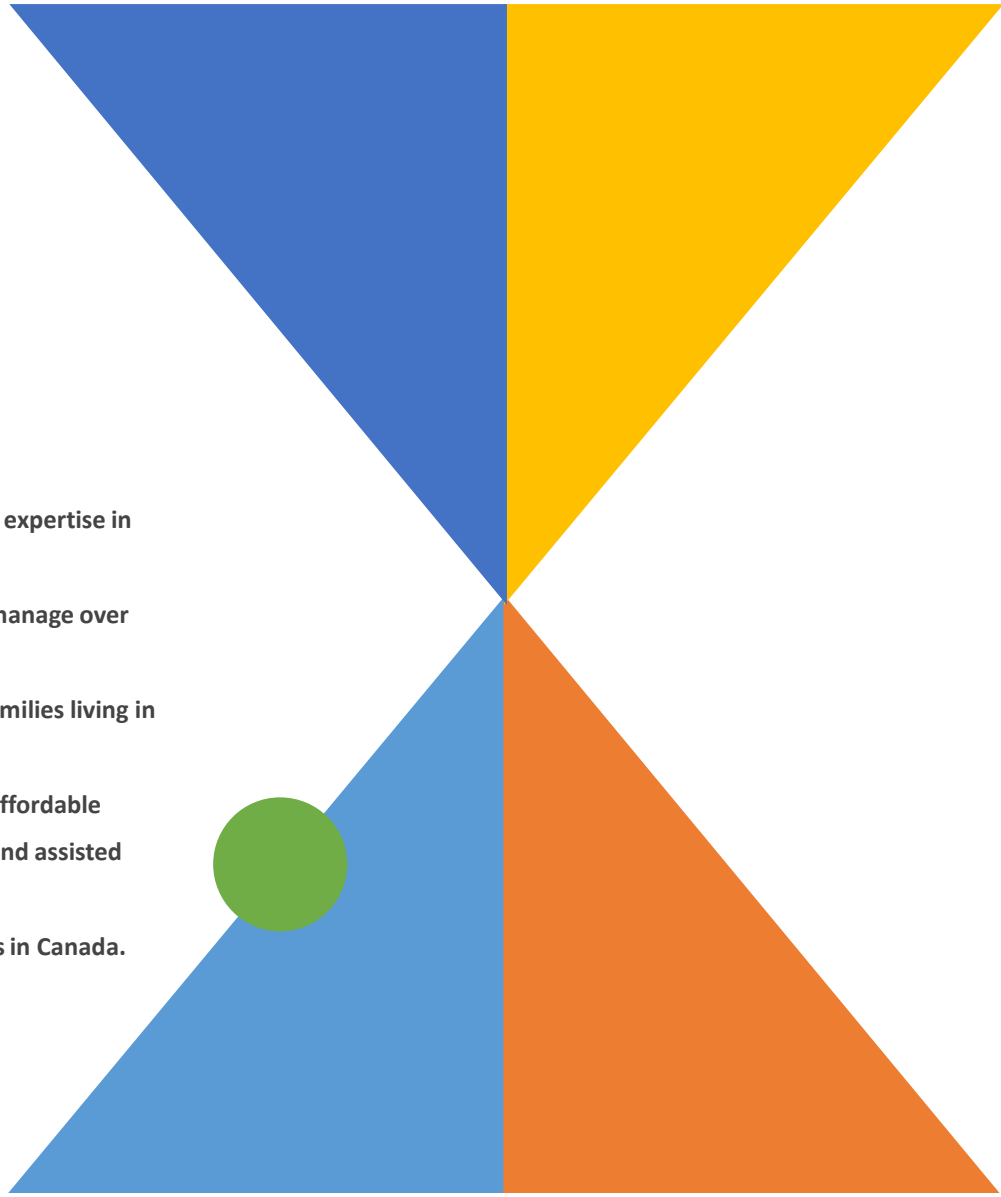
Indigenous Lead Initiatives
Emergency Heat Response

Kaila Wong

Manager, Housing Operations

About AHMA

- The Aboriginal Housing Management Association (AHMA) has 25 years of expertise in advancing housing rights for Indigenous Peoples.
- Canada's first Indigenous grassroots housing authority. AHMA members manage over 95% of all Indigenous housing units located off-reserve in BC.
- AHMA administers funds for almost 10,000 Indigenous individuals and families living in urban, rural, and northern parts of the province.
- AHMA members provide a spectrum of culturally safe housing including affordable housing units, homeless shelters, transition homes, supportive housing, and assisted living facilities.,
- AHMA members make up over one-third of Indigenous housing providers in Canada.
- AHMA was created for Indigenous people, by Indigenous people.



AHMA heat response support

- AHMA works with each Aboriginal housing provider to support their needs and ensure tenants' safety is a priority.
- Early months before the temperatures rise, the AHMA team works with societies to identify risks and supports the society to mediate.
- Needs Assessment and Building Condition Assessments are done with societies
- AHMA's asset strategies team works with Indigenous housing providers to ensure that their systems including HVAC are in working order months before the temperatures rise.
- AHMA in partnership with BC Housing supports our members.

With floods, forest fires and the heat dome we saw several indigenous housing providers seek assistance

- Support with cooling kits
- Support for members to purchase wholesale supplies including water and fans
- Advocate for members who were affected by floods and supported with their needs
- Evacuating and providing rent subsidies to displaced tenants

BC HOUSING

Wellness Checks & Supporting Vulnerable Populations

Housing & Health Services

- April 27, 2023

Agenda

Topic
Vulnerable populations – who is at risk?
Wellness check protocol
Support during extreme heat events

Vulnerable Populations

Demographics at Higher Risk

- Older adults (55+)
- Mental Illness or Cognitive Impairment
- Chronic Disease (ex. Diabetes, heart disease, respiratory disease, and cancer)
- Living alone or socially isolated
- Substance dependency or use
- Impaired or decreased mobility
- Medication use
- Poor physical fitness

Environmental Risk Factors

- Buildings with no mechanical cooling
- Units on higher floors of buildings
- Units directly under the roof
- South and/or west facing windows
- Large window surface areas
- Single pane windows
- No external window shading
- No internal window shading
- No evening cross breeze
- Low neighborhood green space

Tenant vulnerability assessment and wellness check plan

- Resources available:

Extreme Heat - Vulnerable Tenants List

List Updated: May, 2021

Location:	site A
Name:	

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	

Wellness Checks

BC HOUSING

LMDM Wellness Check Protocol

- Environment Canada issues an extreme heat warning
- Staff initiate contact with vulnerable tenants by phone call or in-person checks
- If unable to reach tenant, contact authorized contacts or next of kin
- Tenant Notifications
- Fob checks
- If needed, call emergency services to request a wellness check

Wellness Checks - what do I ask?

a. Are you in distress or uncomfortable due to the heat?
b. How much water are you drinking?
c. Do you know where you can go to cool off? Are they able to get to a different place to cool off?
d. Do you have air cooling devices in your unit?
e. Do you have family, friends, or neighbors who you see regularly?
f. Do you have a service provider you see regularly?
g. How have you coped in past extreme heat conditions?
h. Do you take any medications that can increase the risk of heat-related concerns?

BCH Support During Extreme Heat

BC HOUSING

BC HOUSING

Questions?

2022 Survey of the Non-Profit Housing Sector

1. What would help next time?
   - Access to additional funding to purchase items directly
   - Access to information such as sample response plans, and health info

2. 38% of respondents identified they do not have a plan in place for extreme heat for summer 2022

3. The majority of those respondents felt that templates would assist in developing plans

BC HOUSING

Over 150 societies completed the survey

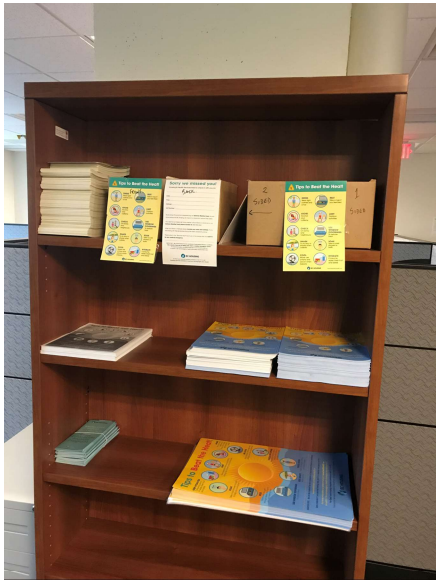
Equipment and supplies inventory

Review of inventories of portable air conditioners, fans and other supplies before the summer will help ensure they are available when needed.
These include:

1. Electric fans
2. Portable air conditioners, typically installed in cooling rooms
3. Portable air purifiers that can be used in a cooling room during a poor air quality event
4. Water cooler/station and reusable cups for the cooling room
5. Indoor thermometers to monitor temperatures
6. Information/reminder leaflets or poster (for example see Appendix C & D: Tips to Beat the Heat flyer & poster)

Equipment and supplies inventory

BC Housing example:



Equipment and supplies inventory

If you need equipment or supplies

Option A:
Purchase within your existing budget

Option B:
If not possible within existing budget, reach out to BC Housing Non-profit Portfolio Manager or Supportive Housing Advisor to discuss

The earlier in the season you purchase supplies, the better

Equipment and supplies inventory

New Last Year: Cooling Kits

- These kits can include:
- Rubbermaid tote to use as a cold footbath
- Cold packs for applying to body
- Cooling towel Indoor thermometer to be aware of dangerous heat levels
- Reusable water bottle to hydrate often

Positive response from BC Housing tenants