

# Project, prepare, and protect: Using climate data and tools to understand future extreme heat

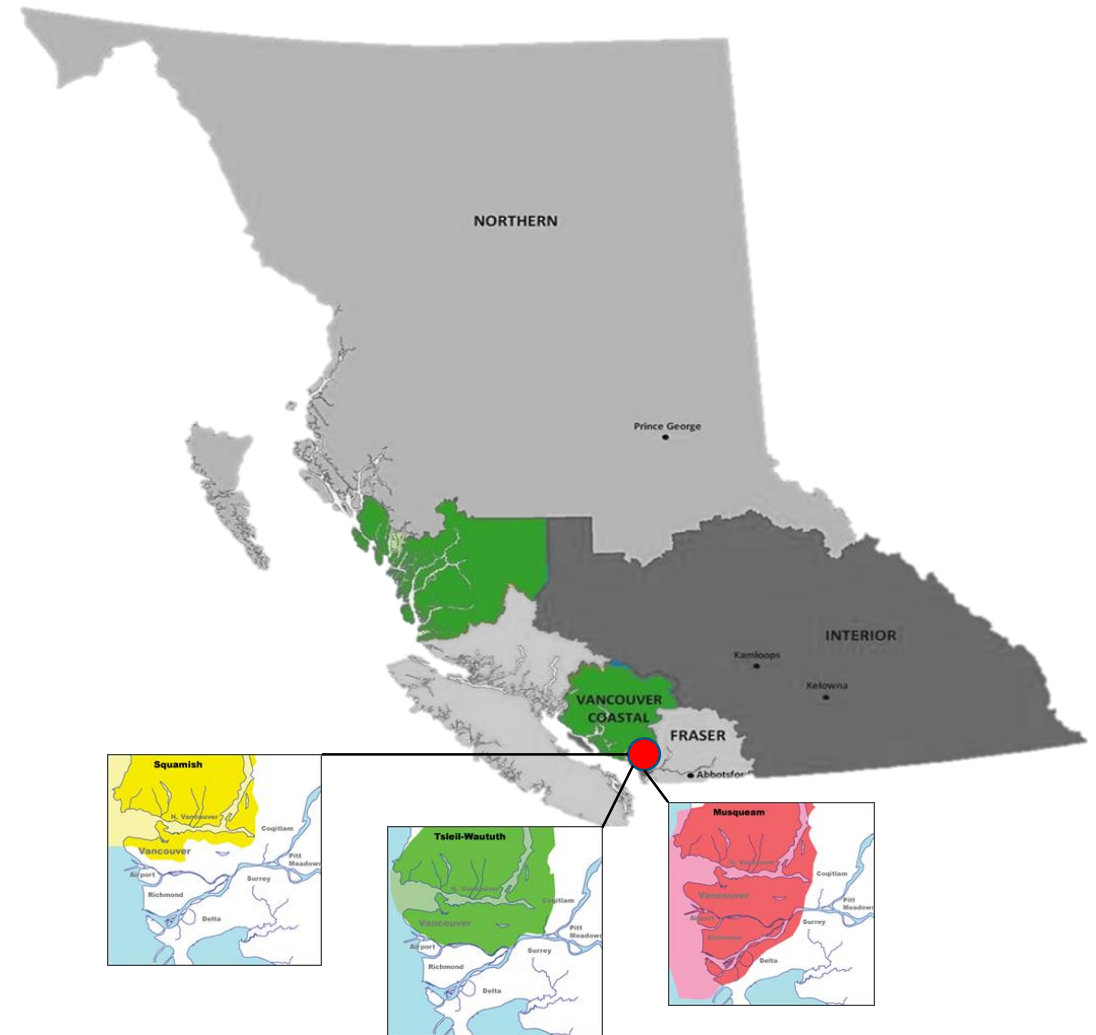
Dr. Craig Brown, Senior Scientist, Climate Change and Health

August 16, 2023

# Land Acknowledgement

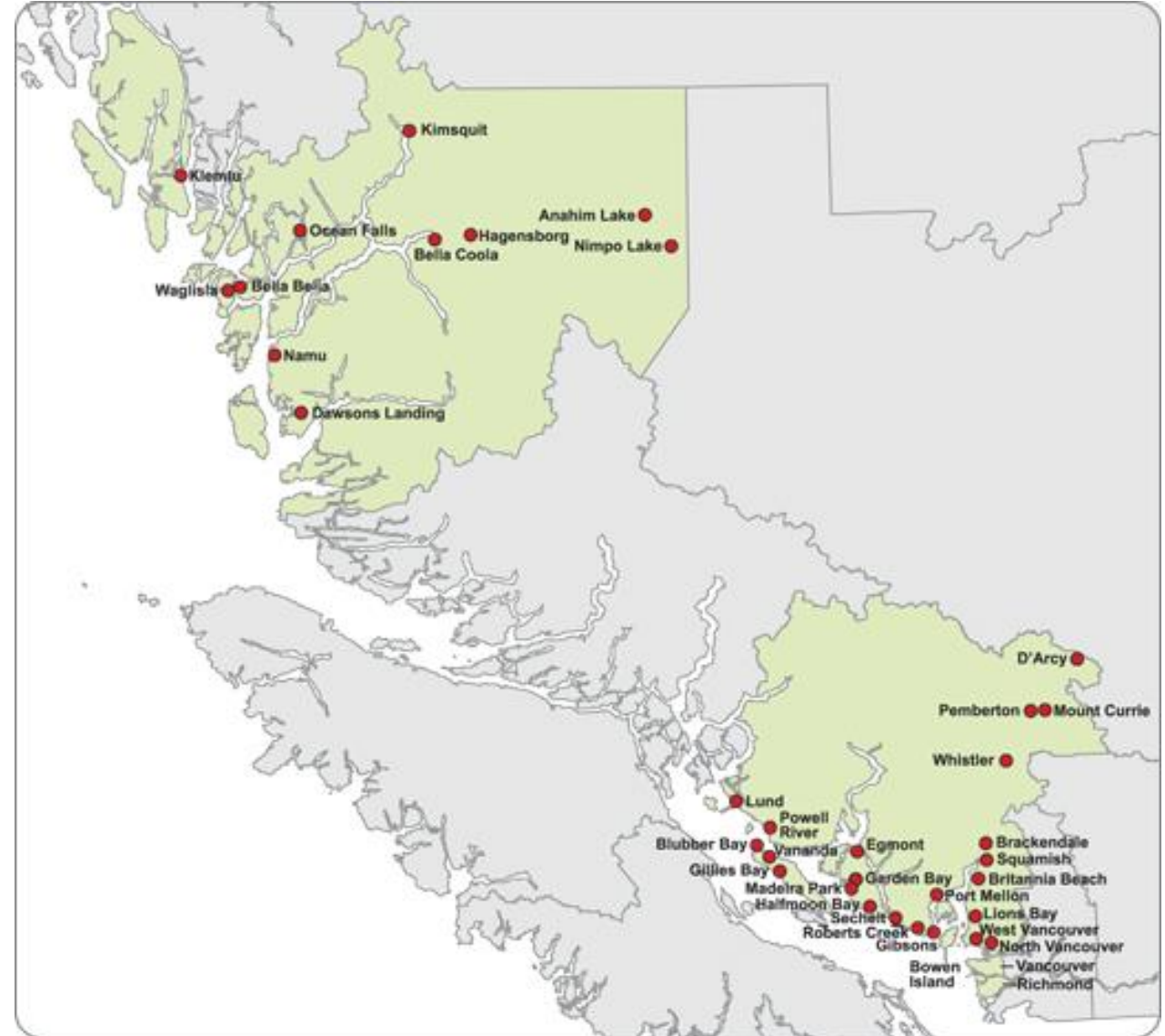
**We wish to acknowledge that the land on which we gather is the traditional and unceded territory of the Coast Salish Peoples, including the Musqueam, Squamish, and Tsleil-Waututh Nations.**

Vancouver Coastal Health operates 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 First Nations.



# Vancouver Coastal Health

- We serve over 1.25 million people, nearly 25% of BC's population.
- Provide services in the 13 hospitals we operate, as well as a range of services including:
  - Primary care
  - Community-based residential and home health care
  - Mental health and substance use services
  - Public health

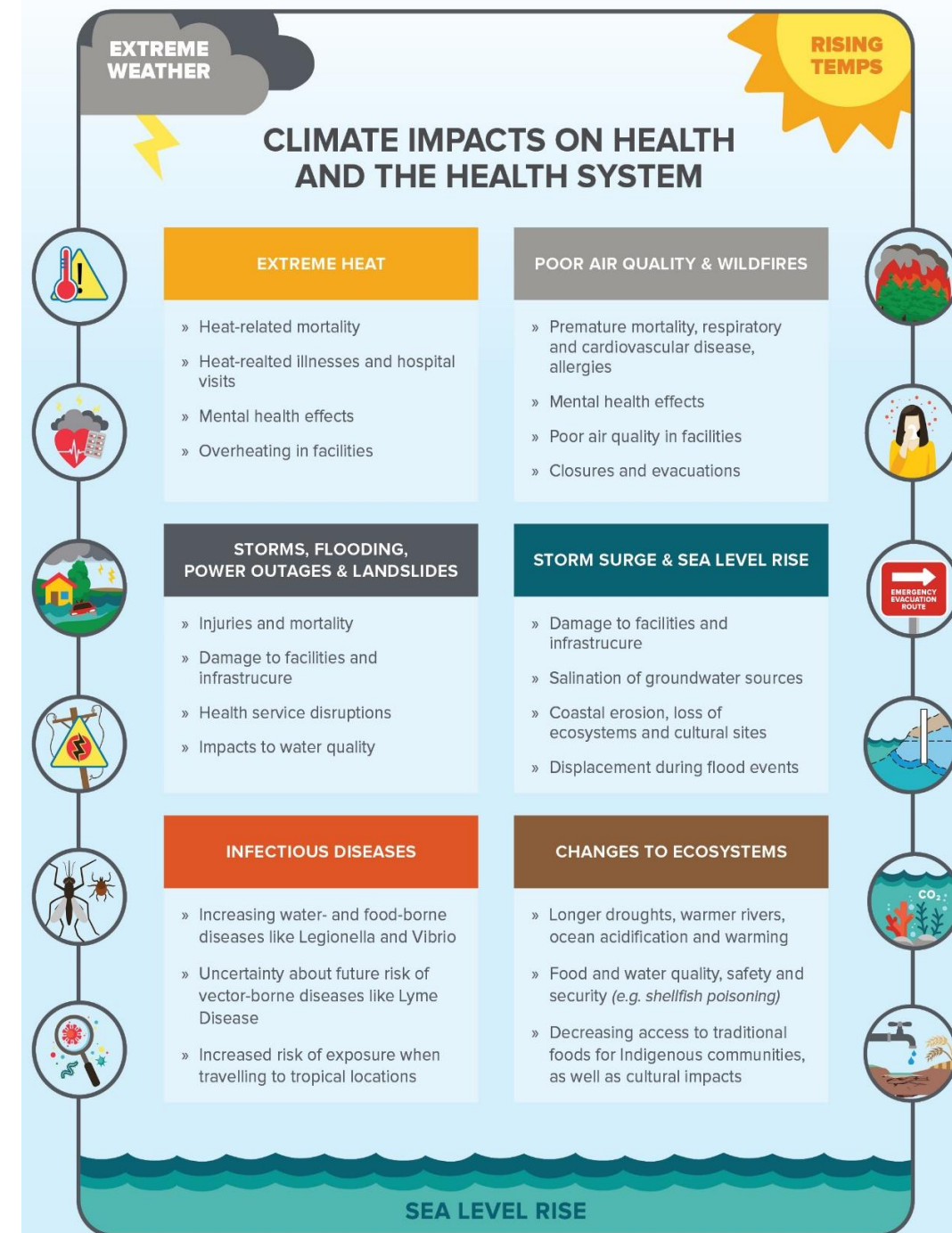


# Key Public Health Services

- Conducting research and risk assessments
- Capacity building, training, and support
- Advice and advocacy for healthy policy
- Monitoring environmental exposures and health impacts
- Communicating to the public, governments, and community organizations before, during and after heat and air quality events
- Leading and supporting projects in community
- Providing direct funding to communities for specific projects

# How we work with climate data

- 2020-2021: Conducted a **Vulnerability and Capacity Assessment** to inform our **Climate Change and Health Adaptation Framework** (Health Canada-funded)
- Data sources included:
  - [www.climatedata.ca](http://www.climatedata.ca)
  - Canada's Changing Climate Report (e.g., sea-level rise)
  - Grey and academic literature (e.g., wind)
  - Various sources for historical data (which can be very challenging)
  - Corroborated with existing projections reports (e.g., Metro Vancouver)

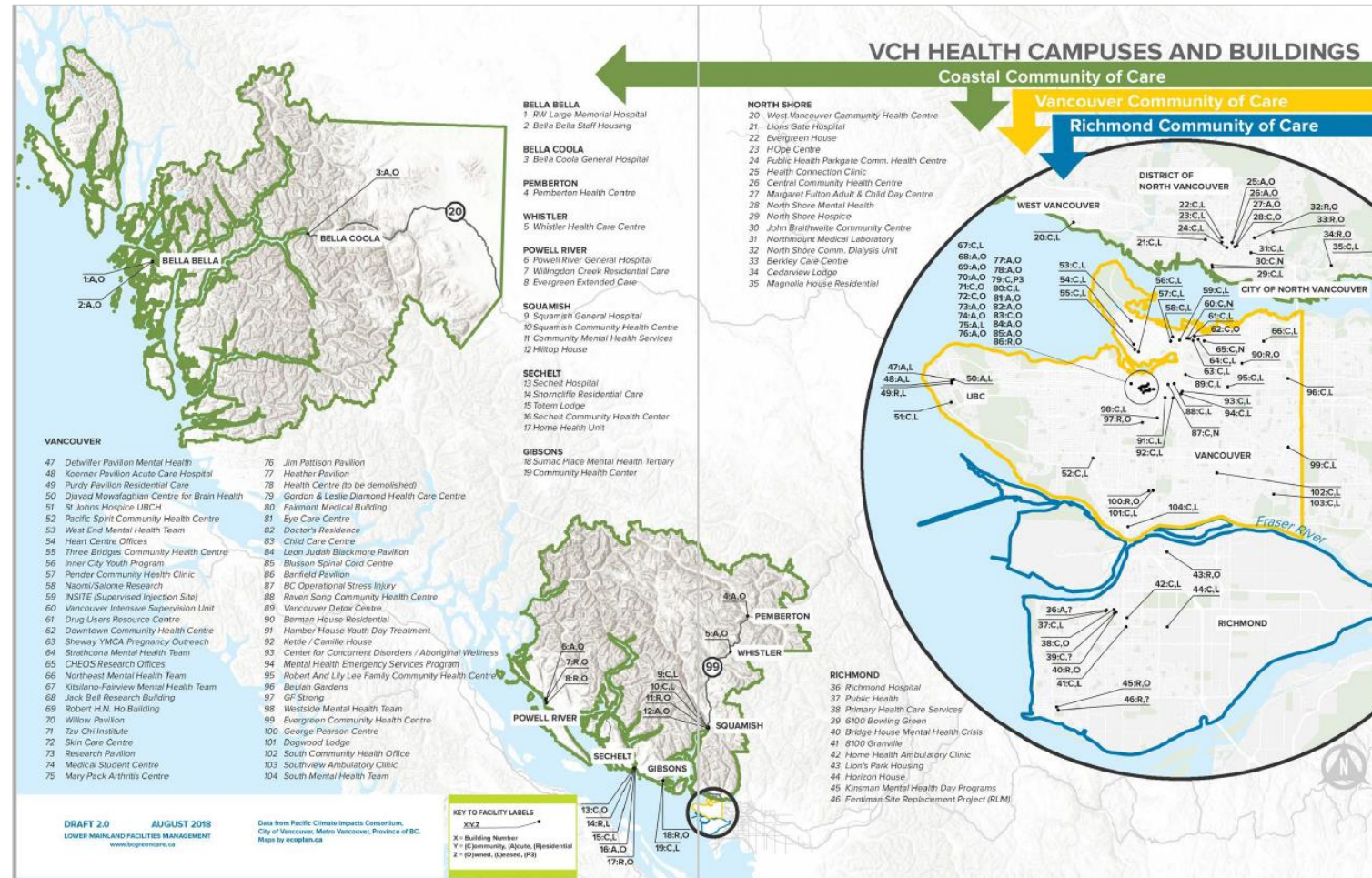




# Portfolio Climate Hazard Exposure Screen

## Objectives

- Conduct high-level climate exposure screen for ~45 sites across VCH using myriad data
- Wildfire example
  - WUI (wildland urban interface) fire threat classification map
  - Wildfire occurrences (Western Canada) (paper)
  - Realized fire spread days (paper)
  - Wildfire smoke exposure - number or percent of days over 25 ug/m3
- Uses a 1971-2000 baseline



# Climate Projection Data for Health Regions

Main [Data Notes](#)

Select Health Authority:

Vancouver Coastal

Select Health Region Level:

CHSA

Select Health Region:

Squamish

Select Climate Projection Variable:

Maximum temperature of hottest day

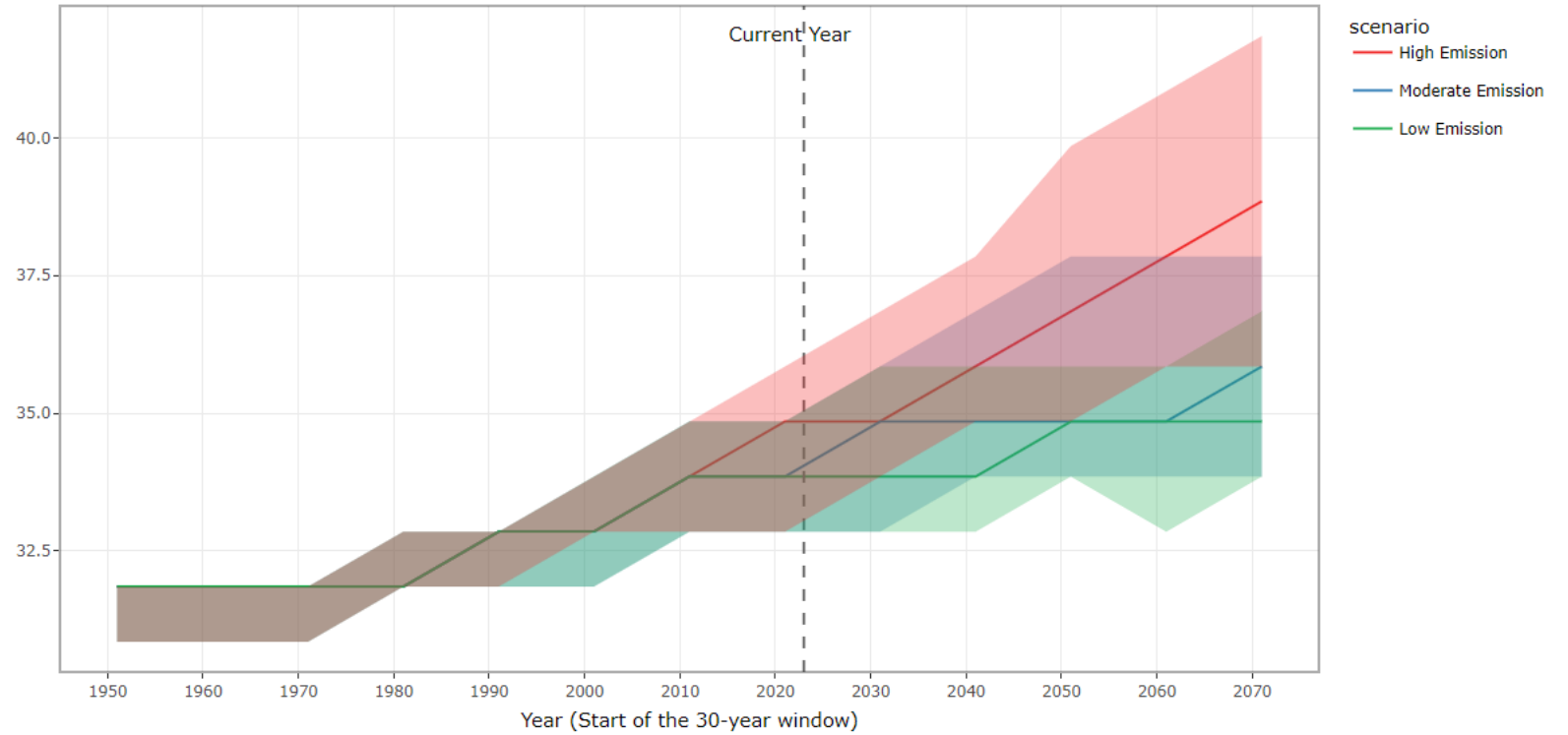
Absolute Value or Change?

Absolute value

Download data in the graph

Download all data

Maximum temperature of hottest day (degree celsius) (30-year average)



# Communicating and reducing heat-related health risks

- Create and share **resources and supports** with our community partners:
  - Resources to help identify health impacts associated with heat and smoke events
  - Guidance documents for cooling centres, community-based wellness checks, restaurant operators, special events and schools
  - Gathering information about electricity outages, which increase risk significantly
  - Please visit [www.vch.ca/climatechange](http://www.vch.ca/climatechange) for resources and information



City of Vancouver Cooling Centre  
Photo Credit: Meghan Stridht

**CREATING COOLING SPACES DURING HOT WEATHER**  
GUIDANCE FOR COMMUNITY ORGANIZATIONS

**VANCOUVER COASTAL HEALTH**

JUNE 6TH 2023



# VCH Extreme Heat Surveillance Dashboard

Apr 21, 2023 - Jun 19, 2023

\* For Internal VCH Public Health Use Only: The contents of this dashboard are strictly confidential\*

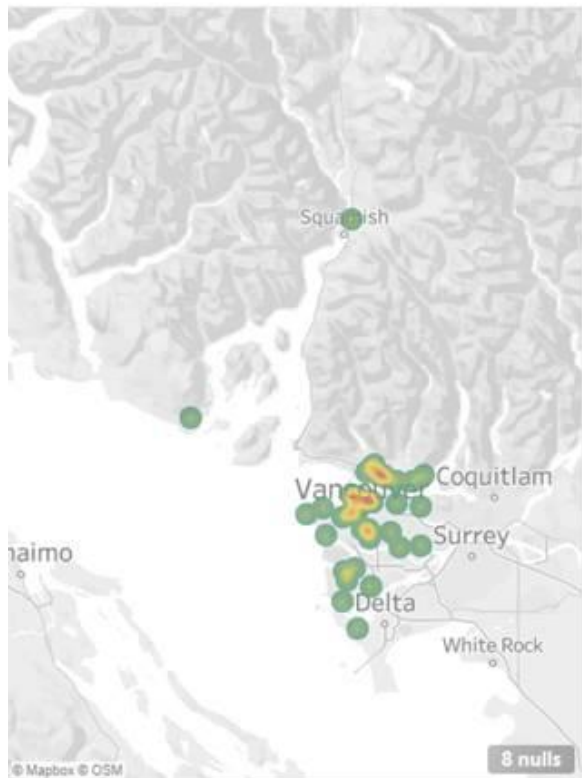
Please note that caution is warranted when interpreting these data as Emergency Department (ED) visit data from the following facilities are unavailable: BC Children's Hospital, qathet General, Bella Cooola General, and Bella Bella General.

Any inquiries related to this dashboard should be directed to [phtsu@vch.ca](mailto:phtsu@vch.ca)

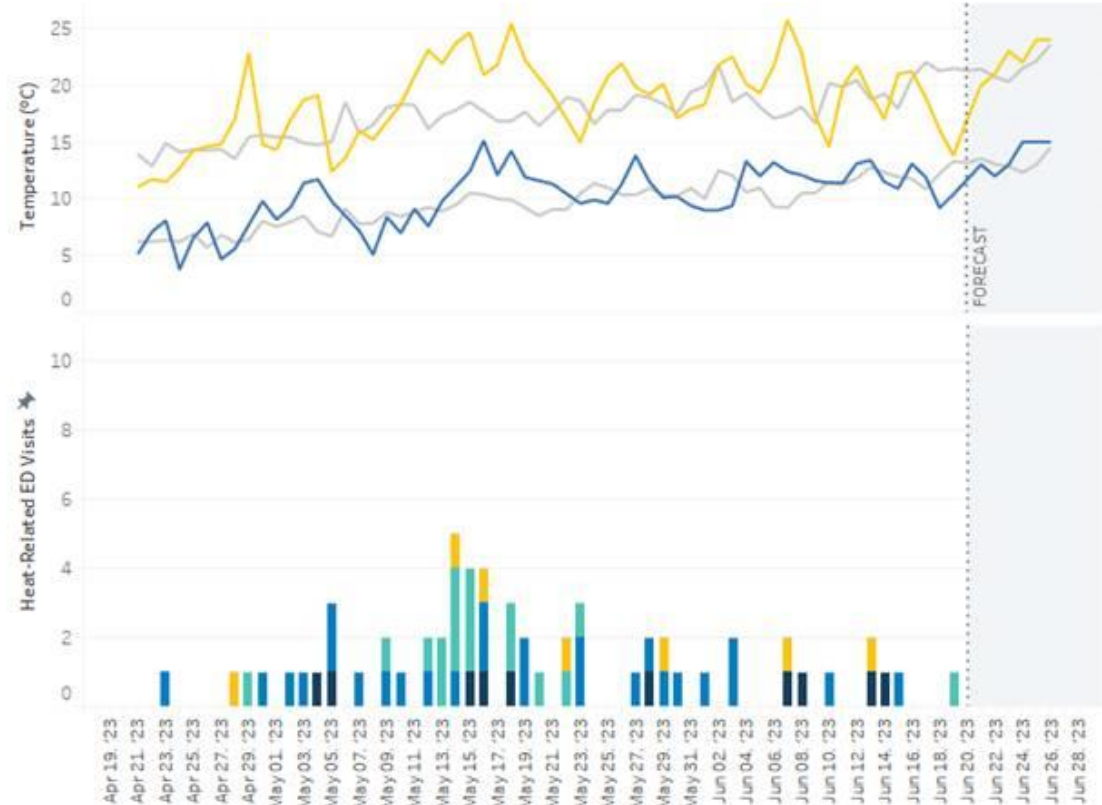
Data as of 20/06/2023 9:05:58 AM

ED Visits	High Acuity Visits	Admissions	Ages 70+
60	7 (11.7%)	1 (1.7%)	6 (10.0%)

Distribution of ED Visits by



Temperature at  and Heat-Related ED Visits by



Temperature Legend

Max. Daily Temp Min. Daily Temp Mean Daily Max. (5-.. Mean Daily Min. (5-..

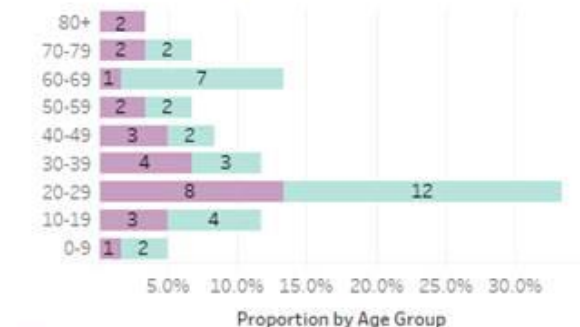
CTAS Acuity Score Legend

NA 2: Emergent 3: Urgent 4: Less Urgent 5: Non-urgent

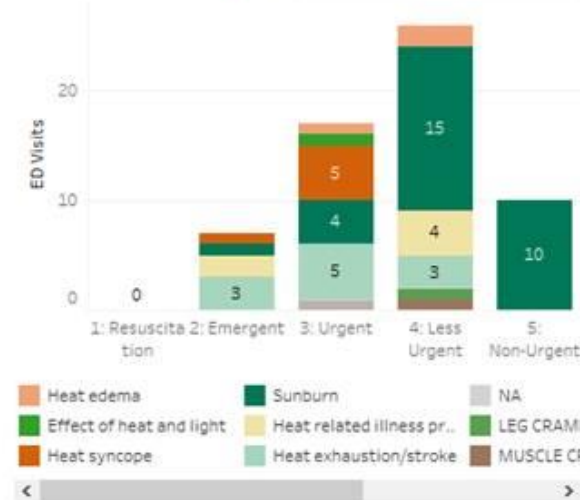
ED Facilities

Timeframe

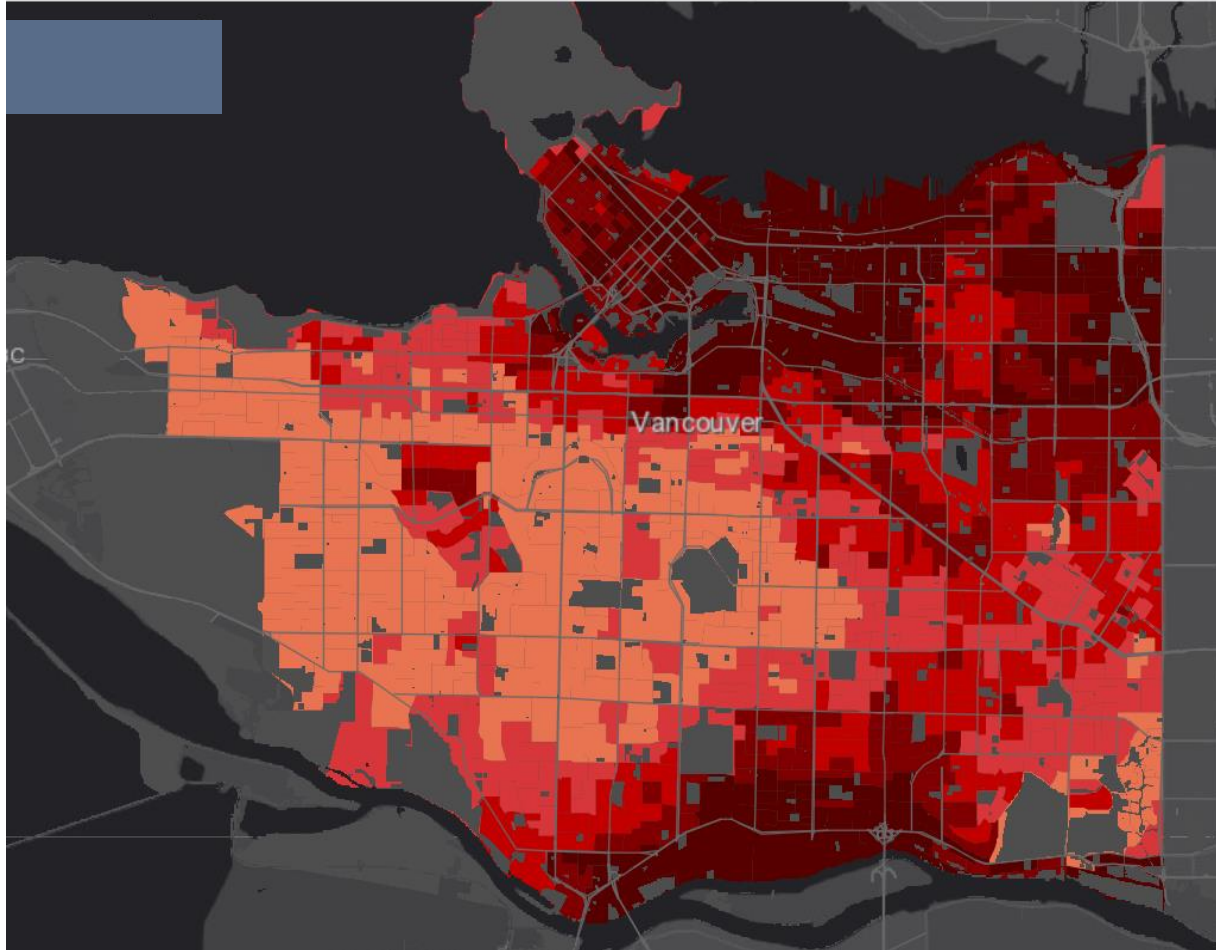
ED Visits by Age and



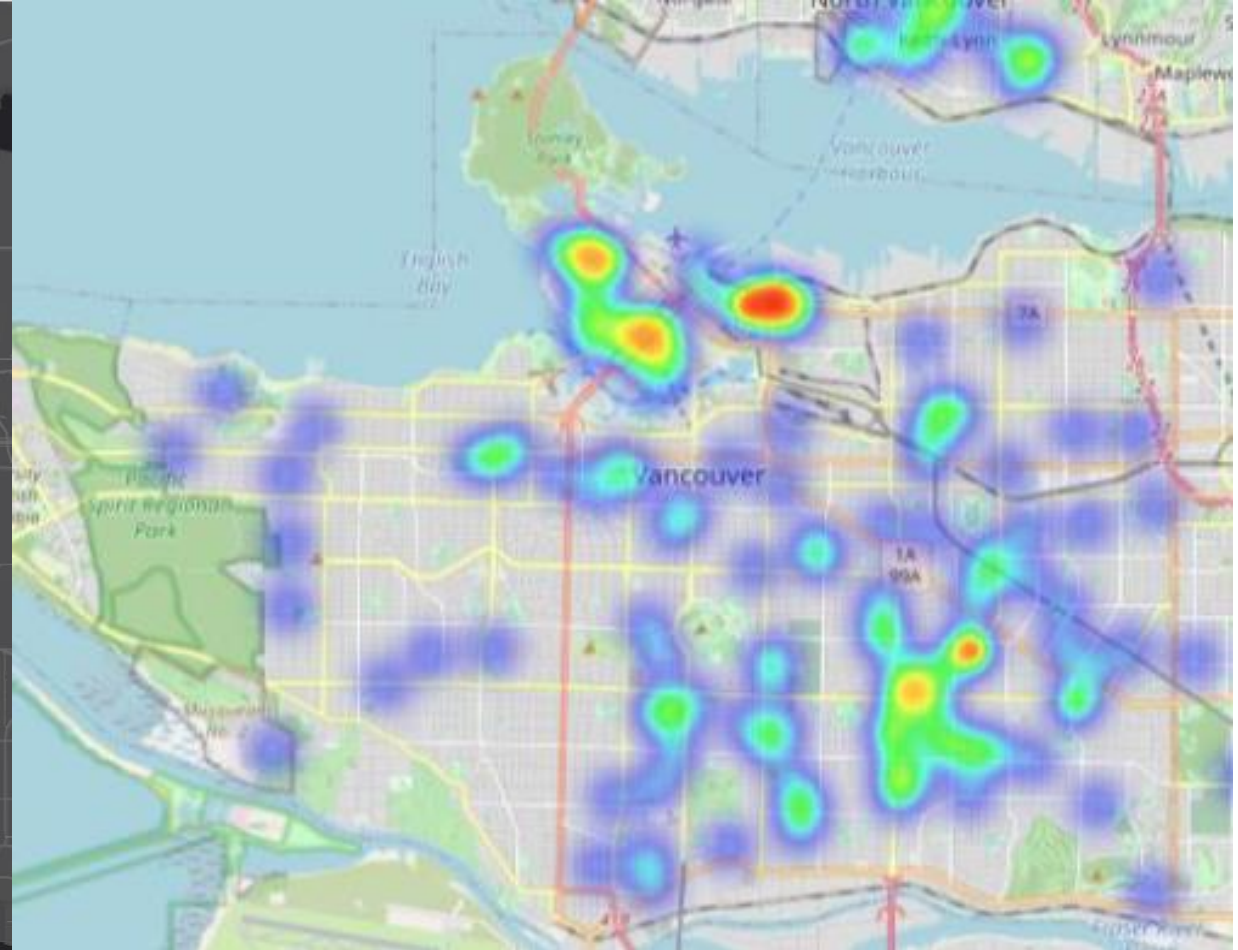
ED Visits by Acuity and



# Heat Vulnerability Mapping



# Emergency Room Visits During 2021 Heat Dome



# Thank You!

[vch.ca/climatechange](https://vch.ca/climatechange)



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Vancouver  
CoastalHealth

The logo for Vancouver Coastal Health, featuring a stylized white mountain range silhouette above the text.