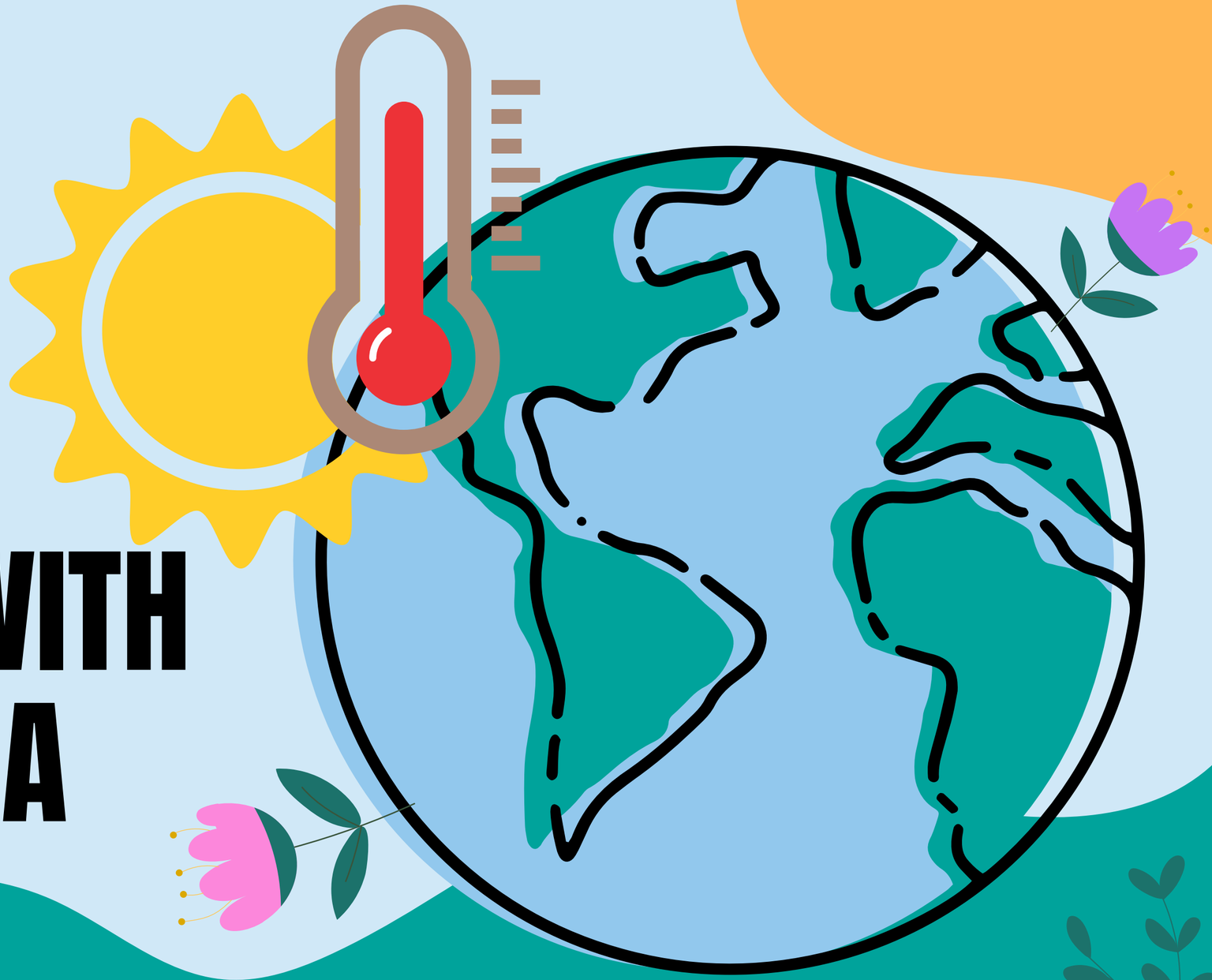
# HOW CLIMATE AFFECTS INDIVIDUALS WITH SCHIZOPHRENIA



# How Climate Change Affects Our Health [1]

**Climate change is now seen as the biggest health challenge worldwide** (UNHumanRightsOffice,2022;WHO,2023).

Extreme weather, like **heatwaves**, **storms**, and **wildfires** is becoming more common

## These Events Can Harm Our Health In Many Ways

- Direct injuries (e.g., from storms or flooding)
- Breathing problems from smoke or poor air quality
- Less access to healthy food and clean water
- More spread of infections
- Increased stress, anxiety, and mental-health strain

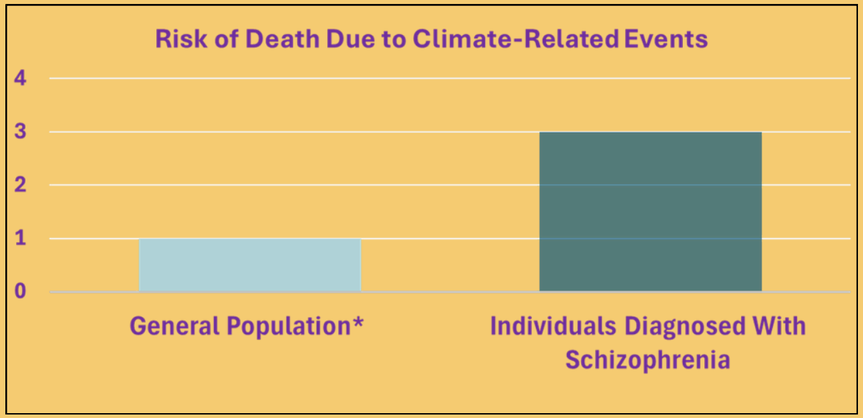
## Climate change does not impact everyone equally.

- Some groups are more vulnerable due to health, social, or economic challenges

## Why Some People Are More Affected

People living with schizophrenia face **higher risks**, especially during extreme heat.

During the 2021 heatwave in Western Canada, **people with schizophrenia were three times more likely to die from heat** compared to people with other chronic illnesses.




*Older adults, people experiencing homelessness and people with chronic health conditions

# Why People With Schizophrenia Are More Sensitive To Heat

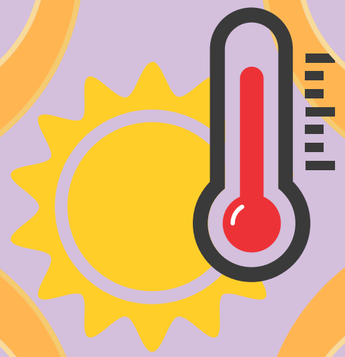
## Biological Factors

### Trouble Cooling Down

Skin doesn't release heat as well and sweating may be reduced and the body overheats more easily.

### Higher Levels of Inflammation

Ongoing inflammation makes the body less efficient at handling heat stress.



### Automatic Body Controls Don't Adjust Well

The system that manages temperature, heart rate, and blood pressure doesn't respond quickly enough in hot conditions.

### Heart & Blood Vessels Can Be Less Stable

Cardiovascular system may struggle to keep the body steady when it's very warm.

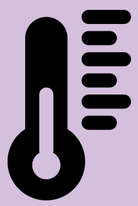
**These biological factors often interact with each other and with medication effects to significantly increase heat-related health risks.**

# Why People With Schizophrenia Are More Sensitive To Heat

## How Some Medications Can Increase Heat-Related Risks

### Body Temperature

Some medications (like antidepressants, antipsychotics, and stimulants) can make it harder for your body to cool itself.



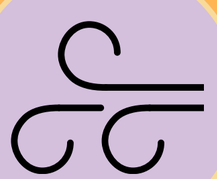
### Reduced Heat Awareness

Medications such as antipsychotics and benzodiazepines (medications for anxiety or sleeping difficulties) can make it harder to notice when you're getting too hot.

### Dehydration Risk

Medicines like lithium, some blood pressure medications, and drugs that dry you out (ex. allergy or stomach medicines) can increase the chance of dehydration or become unsafe if you're dehydrated.

### Less Sweating



Some antipsychotic medications can reduce sweating, making it harder for your body to cool down.

### Why This Matters

**Short heat exposure can make side effects like dry mouth or sweating worse.**
**Long heat exposure is especially risky if you don't have air conditioning.**

# How Mental And Social Factors Increase Vulnerability To Climate Impacts [4]

## Cognitive And Behavioral Risk Factors

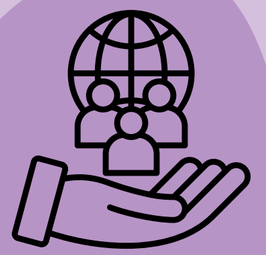
**Difficulty recognizing heat danger**

Symptoms like trouble focusing, confusion, or disorganized thinking can make it harder to notice when the body is overheating.

**Harder to take steps to cool down**

Things like medication, substance use, stress, or cognitive challenges can make it difficult to remember to drink water, seek shade, or open windows.

## Social and Environmental Risk Factors



**Unsafe or poor-quality housing**

Living in hot apartments, shelters, or being homeless increases heat exposure. (Cities with lots of concrete—urban heat islands—also trap heat.)

**Isolation or lack of support**

Being alone, facing discrimination, or not having someone to check in can make it harder to get help during extreme heat.

**Limited access to cool spaces**

Not having air conditioning, cooling centers, transportation, or reliable information increases risk.

# Simple Heat Safety Guide

1. **Keep curtains closed during the hottest part of the day**

2. **Drink water often, even before you feel thirsty**

3. **Limit caffeine and alcohol**

4. **Avoid using the oven (it heats your home)**

5. **Take cool showers and wear loose, light clothing**

**Get Clinical Support**

**Clinicians are trained to spot heat illness.**

Your healthcare team is learning how to recognize heat exhaustion and heat stroke quickly.

**Medication discussions**

It may not be a good idea to change your medication, but your doctor will talk to you about:

- How your meds affect body temperature
- How to store them safely during hot weather

# City-Wide Solutions to Protect People from Extreme Heat[6]

## Improving Housing to Handle Heat Better

- Rules that set a maximum safe indoor temperature.
- Extra protections for renters who may be more vulnerable.

## Laws to Keep Indoor Spaces Safe

- Upgrading older or poorly insulated homes.
- Focus on low-income households who face the highest risk.

## Cooling Centers as Community Supports

- Provide safe, cool places during heat events.
- **Challenges:** stigma, long travel distances, and limited awareness.

# What Future Research Still Needs to Do



## Look Beyond Short-Term Heat Effects

- Most studies only examine what happens right away during heat.
- We need to understand how heat affects the body, mind, and daily life across different regions, especially in low-income areas.

## Understand How Different Risks Add Up

- Research should look at how things like poverty, age, gender, and discrimination combine to increase heat-related risks.

## Connect Climate Research to Real Programs

- Studies should link heat exposure to programs already helping people, such as Housing First* or policy changes, to see how these can offer real-world protection.

## Study What Actually Helps People

- We need stronger research on real solutions like evacuation plans, outreach programs, cooling centers, and training for healthcare providers.

*helps people get a stable home quickly, then provides support to help them stay housed

# Shared Experiences



## People with schizophrenia who survived the 2021 Extreme Heat Dome Event in B.C.

"I noticed my schizoaffective [disorder] more, I hear more voices when I stay in the heat and don't seek shade and don't drink water. But I notice it more when it's really hot out." - Female, 29

"The heat caused me to get stressed out basically and then like lose my mind—and get out of touch with reality and start hearing, you know, the Gods in my head again." - Male, 23

"I just tried to find a shady tree or something. I lived in the, in the parks underneath trees and stuff. So you know, I would just stay in the shade." - Female, N/A

"I do remember having to go and have a cold shower and, in my apartment lay down on the floor. Because the heat rises, right? I was able to manage it by getting down closer to the floor and regulating [heat] with fans." - Female, 60

# Additional Supports and Information

**Water Fountains**

https://www.toronto.ca/explore-enjoy/part-recreation

**Heat Campaign: Advocating For Cooler Homes**

https://www.torontoenvironment.org/tea_heat_campaign_for_safer_cooler_homes

**Walk-In Clinics**

https://docmapper.ca

**Cooling Centers**

https://www.toronto.ca/explore-enjoy/part-recreation

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