



## Heat Vulnerability Roundtable: Exploring the Role of Primary Care & Community Pharmacy

June 1, 2023

Hosted by: TAHSN-CHS Sustainable Health System Community of Practice

Primary Care Sustainability Working Group • Toronto Academic Health Science Network (TAHSN)

• Council of Health Sciences (CHS)

### Term 1: Sept. 2020-Summer 2022

- Operating Rooms
- Inhalers in Primary Care
- Virtual Care
- Organizational Readiness
- Equity in Climate Action

### Term 2: Sept. 2022-Summer 2025

- Extend & Innovate
  - Sustainable Procurement
  - City & Healthcare Climate Action
    - City of Toronto, City of Mississauga, Region of Peel, Health Canada, TRCA
  - Primary Care Sustainability
    - <u>Climate Resilience</u>

## **Sustainable Health System Community of Practice**



### SUSTA COM



## ement Climate Action cy of Mississauga, alth Canada, TRCA inability

# SUSTAINABLE HEALTH SYSTEM COMMUNITY of PRACTICE

## **Primary Care Sustainability Working Group**



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## Roundtable Aims & Agenda

|--|

Introduce the idea that primary care and community pharmacy can address heat

Welcome & Opening 12:00-12:15 **Primary Care Sustainability Working Group** 

ß	Understand heat risk and vulnerabilities:	12:15-12:35	<ul><li>Presentations</li><li>Health Canad</li><li>TRCA</li></ul>
		12:35-1:00	Q&A, followed l

**Discuss potential ways for primary care** and community pharmacy to address heat risks; consider what might be needed to achieve those aspirations

1:00-1:30

1:30-1:55

- **Breakout Rooms** •
  - **Group Discussion**

## da

### by Group Discussion

## Opportunities for Primary Care in Addressing Heat

Identify "at- risk" clients	AgeMedication classes• 65+• Antipsychotics• Antidepressants• Diuretics• Lithium	<ul> <li>Chronic conditions</li> <li>Hypertension</li> <li>Mood/cognitive condition</li> <li>Substance use disorders</li> <li>Diabetes</li> <li>Cardiovascular disease</li> </ul>	Living Unc exp In u Livi
Potential interventions	<ul><li>Outreach</li><li>Community Ambassadors</li><li>Community Workers</li></ul>	<ul> <li>Providing resources</li> <li>Prescriptions for air conditioning</li> <li>Subsidies or rebates for home energy</li> </ul>	Dissen • Pus • Pos
Evaluation	Query role for Primary Care Prac	ctice-Based Research Networks?	

### conditions

derhoused or periencing homelessness urban heat islands ing alone

mination of information sh notifications sters/websites

## **Opportunities for Community Pharmacy in Addressing Heat**

### Accessible pharmacy locations

- Numerous locations within communities
- Does not require appointments or entry fees (e.g. can be used for cooling)

### **Close patient** relationships

- Pharmacy staff know their regular clients
- Pharmacists are aware of high-risk neighborhoods & vulnerable patients
- Can assist with identifying of those at risk

### Access to medication records

- Have access to medication lists for clients
- Can identify highrisk medications that disrupt with body temperature regulation
- Provide pamphlets or auxiliary labels

Trained health professionals

• Can assess clients exhibiting symptoms of heatrelated illnesses • Can offer management advice or referral

## Presenters

### **Melissa Gorman** Senior Science Advisor, Heat Division, Climate Change & **Innovation Bureau** Health Canada

### **Sharon Lam** Intermediate Research Scientist, **Ecosystem & Climate Science Development & Engineering Services Toronto & Region Conservation Authority**



**Adriana Gomez** Supervisor, Sustainable Communities, Education & Training Division **Toronto & Region Conservation Authority** 



## **Protecting Canadians from Extreme Heat**

Heat Division, Climate Change and Innovation Bureau, Health Canada June 1<sup>st</sup>, 2023

YOUR HEALTH AND SAFETY ... OUR PRIORITY.





# Extreme heat is a leading weather-related cause of illness and death in Canada

- An estimated 300 excess annual deaths in relation to heat waves between 1971-2020 in 26 Canadian communities.<sup>1</sup>
- <u>Guo et al. (2019)</u> project that, without adaptation actions and in a high greenhouse gas emissions scenario, up to ~70,000 excess heat-related deaths in Canada over a 50 year period spanning from 2030 to 2080.<sup>1</sup>



### Image source: CBC 2021

## Who is most at-risk during extreme heat events?

While extreme heat can put everyone at risk from heat illnesses, health risks are greatest for:

- older adults
- low-income earners
- infants and young children
- people who work in the heat
- people who exercise in the heat
- people experiencing homelessness
- people with chronic illnesses (like breathing problems, mental illness and heart problems)

### What did we see during the Heat Dome in B.C.?

- 98% of deaths occurred indoors<sup>1</sup>
- 97% were 70 years of age or older<sup>1</sup>
- More than half (56%) lived alone<sup>1</sup> More lived in socially or materially
- deprived neighbourhoods<sup>1</sup>
- Those with schizophrenia had a 3x higher chance of death among all EHE deaths<sup>2</sup>

Sources: 1 – BCCS, 2022; 2 – Lee et al., 2023

## Take advanced action. Heat can cripple the health system.

Heat domes, wildfires and flooding: Get prepared now for the next emergency, experts say

Experts in emergency preparedness say taking even small steps for preparedness can make all the difference



Chad Pawson · CBC News · Posted: Dec 22, 201

in

Heat wave could 'cripple' emergency services already in crisis, paramedics say

'A complete collapse': B.C. paramedic, dispatcher detail weekend of heat-emergency chaos



Image source: CBC 2021

## How is Health Canada protecting Canadians from extreme heat?

### **Mission – To protect the health of Canadians from extreme heat by:**

- Developing and improving heat alerts (see Annex A & B);
- Developing and improving heat responses and emergency preparedness across Canada;
- Increasing public awareness of heat-health impacts and protective measures;
- Working with partners and stakeholders to fill evidence gaps and to advance action to protect health from extreme indoor heat; and
- Improving science to assess the risk of extreme heat to Canadians and how to respond.

### **Goal – Zero heat-related deaths by 2040**



## What is a Heat Alert and Response Systems (HARS)?

## Heat related illness and death is preventable

Since 2008, Health Canada has been leading an initiative to enhance community and individual resiliency to extreme heat events.

One of the heat divisions' goal is to support our partners in the development and implementation of HARS in communities and provinces.

## HARS are systems that:

- Alert the public about the risks of heat;
- Facilitate the development of community responses to help people at highest risk; and,
- Provide individuals with information and other resources to help them take protective actions before and during an extreme heat event



## Many groups have a key role to play to reduce health risks from extreme heat.

## **Partners can include:**

- Public Health Officials •
- City Officials •
- Health Authorities •
- **Emergency Services**
- School Boards •
- **Community Facilities** •
- **Community Organizations**
- **Pharmacists** •
- Primary and Community Care





## What are some of Health Canada's science related activities?

1. Updates to existing heat warning thresholds and consideration of tiered alerts

Following the Heat Dome in B.C., HC is looking at better understanding how to develop tiered heat thresholds.

2. Interim update to its heat-health messaging

HC is in the process of updating its interim heat health messages with the University of Ottawa.

3. Research on vulnerable populations

Supporting experts and health partners to better understand the risk factors and health protection actions/interventions to protect vulnerable populations.

indoor heat guidance

HC is working with the University of Ottawa to develop guidance on an indoor heat temperature threshold.



# 4. Developing HC

## What types of guidance has Health Canada published?

One example is the pharmacists fact sheet on extreme heat and human health (<u>HC, 2021</u>). 

### Any medication with the potential to affect the following can put someone at a higher risk of heat illness:

- The hypothalamus, and the body temperature set-point
- Peripheral vasodilation
- Heat perception, leading to behavioural change (avoidance)
- Cardiac output

- Sweat rate
- Renal function
- Body hydration
- Electrolyte status

Some examples of drug classes include:



- Antipsychotics/ Neuroleptics
- Antidepressants
- Lithium
- Anti-epileptics
- Anti-Alzheimer's agents (Cholinesterase inhibitors)

- Anti-Parkinson's agents
- Diuretics
- Nitrate vasodilators
- ACE inhibitors
- Calcium channel blockers & beta blockers

- **RECOGNIZE** early signs of heat illnesses and direct patients to appropriate medical care.
- **DISCUSS** safe handling of medications sensitive to heat.
- **IDENTIFY** patients more at risk during extreme heat events.
- **IDENTIFY** medication history or prescribed medications that may exacerbate heat-related conditions.
- **PROVIDE HEALTH CANADA HEAT HEALTH INFORMATION** to patients, especially those prescribed medications that may increase their vulnerability to heat related illnesses.

Resources can be found online and ordered at Canada.ca







## **Relevant resources**

- Health Canada's extreme heat website
- Information for health care providers and industry
  - Acute Care During Extreme Heat: Recommendations and Information for Health Care Workers
  - Adapting to Extreme Heat Events: Guidelines for Assessing Health Vulnerability

  - <u>Community Care During Extreme Heat: Heat Illness: Prevention and Preliminary Care</u> Health Facilities Preparation for Extreme Heat: Recommendations for Retirement and Care **Facility Managers**
  - Communicating the Health Risks of Extreme Heat Events: Toolkit for Public Health and lacksquare**Emergency Management Officials**
  - Extreme heat and human health: For pharmacists and pharmacist technicians
- Heat Community of Practice: HC hosts the Heat Health Community of Practice (HCoP) webinars connecting public health professionals working on heat and sharing information.



# What are some ideas for how pharmacists & primary/community care could help respond to extreme heat?

- 1. Help distribute heat-health information pamphlets along with prescriptions or medical visits.
- 2. Convey to patients that preparedness for heat is important.
- 3. Train health professionals on how to conduct in-person or phone-based heat-health checks.
- 4. Conduct research to better understand which drugs increase heat-health risks, best approaches for storage, which drugs are most impacted by heat, and optimal ways of sharing this information with health professionals and the public.
- 5. Best practices in reporting heat-related illnesses/deaths.









## Thank you!

Melissa Gorman <u>Melissa.gorman@hc-sc.gc.ca</u> Climate Change and Innovation Bureau

Health Canada

### ANNEX A

# HC works with ECCC to implement evidence-based heat warnings across Canada

- Heat warning criteria established for most areas of Canada by the Meteorological Service of Canada (MSC) in collaboration with HC & provincial/territorial health authorities. HC helps develop the heat warning triggers (more info in annex A)
- MSC emails Weather Notification sent to partners 2-4 days prior to a forecasted heat event reaching criteria and updated as needed
- Unless otherwise stated, the criteria must be met for two consecutive day time highs with overnight lows met in between.





Tmax = Daytime Maximum (High) Temperature Tmin = Overnight Minimum (Low) Temperature Hmax = Daytime Maximum (High) Humidex **ANNEX B** 

## How does Health Canada develop heat alert thresholds?

Historical data (period of at least 15 years) analyzed:

- All-cause mortality data (Canadian Vital Statistics – Death Database)
- Meteorological data (Maximum temperature, ۲ minimum temperature, Humidex) from ECCC

Analysis using Generalized Additive Models shows the relationship between heat and mortality as a mortality curve

### Points of interest:

- **Inflection point:** the point at which • mortality begins to increase with increasing temperatures
- **Intersection point:** The point at which • mortality rises above the average

### NS Mortality vs. maximum temperature (Jun-Aug, 1981–2012)





(Gallantet al., 2018, internal)

## Heat Vulnerability in the Toronto Region:

## Case study of the Rexdale SNAP neighbourhood

Presented by: Sharon Lam and Adriana Gomez



June 1, 2023



## c) The extent to which current and future generations will experience a hotter and different world depends on choices now and in the near-term



### Source: IPCC AR6 Synthesis Report

Canada is warming at roughly twice the global rate, with some areas in the north warming three (or maybe even four) times as fast







Map of observed changes (%) in annual precipitation across Canada, 1948–2012

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### By the numbers:

9 watersheds

6 upper-tier and 15 lowertier municipalities

~5 million people live within TRCA-managed watersheds

~72 km of Lake Ontario waterfront

~18,000 hectares of TRCAowned lands, making TRCA one of the largest landowners in the GTA

**Climate projections for** the Toronto region, under the high emissions scenario (RCP 8.5)

### **MEAN TEMPERATURE**

By the end of the century, the Toronto region is expected to warm by 5°C, leading to more variable and extreme weather







## July 2, 2020

### High : 58°C

Low : 4°C

Developed by Toronto Metropolitan University students with Landsat 8 satellite imagery



Source: World Health Organization

## Sustainable Neighbourhood Action Program (SNAP)

A neighbourhood-based solution for sustainable urban renewal and climate action

> **Develops and implements Action Plans and Climate Resilience Strategies** for all land uses

> > Brings together municipal technical objectives with residents' priorities

Works with **local groups** and builds partnerships with all sectors to make **implementation** happen





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## **SNAP's Sustainability Framework**



## **A Growing Network of SNAPs**



Neighbourhoods

Municipalities



Implementation **Collaborations and** 

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## Neighbourhood Screening Process in collaboration with eight City of Toronto Divisions



25 ha Hexagonal Units



Identification of geographical areas with overlapping vulnerabilities, urban renewal needs and environmental priorities







## **Key Priorities in Rexdale:**

- Neighbourhood Improvement Area/ Vulnerable population: food insecurity, concentrated poverty
- Low tree canopy
- Heat stress
- Basement **flooding** (medium) & riverine flooding
- **Erosion** in valley
- Aging building stock and Infrastructure
- Sensitive Target Fish Species
- High priority for LID
- Sewer discharges to ESA
- Energy retrofit needs
- Humber/Don Loop trail gaps
- Humber: Canadian Heritage River





## **Rexdale SNAP** Study Area (Smithfield)



## **Rexdale SNAP Action Planning Process** (For Sustainability Action Plan and Climate Resilience Strategy)



## **Stakeholder Engagement**

### **Other Public Agencies**

Local Agency COVID Cluster Table Toronto Public Library Local Jr. Middle School Humber Arboretum Emery Keelesdale Nurse Practitioner-Led Clinic Rexdale Women's Centre TRCA (8 Divisions)

### **City of Toronto**

Councillor Resiliency and Emergency Offices Social Development Finance and Administration: Poverty Reduction Strategy Tower Renewal Community Development Officer Transportation Services, Green Streets/ GI Neighbourhoods Environment and Energy Office Parks Forestry and Recreation **Toronto Public Library** Toronto Public Health Toronto Indigenous Affairs Office



and Other Interested Organizations

Rexdale Community Hub **Community Conversations** Local Youth Shelter Place Based Neighbourhood Infrastructure Committee Queen's Leveling up Former Harvest the Rain Homeowner **MUR Resident Champions** Parks People Africa Climate Action Initiative and Community for Climate Action NE Plaza Pops **Etobicoke Master Gardeners** Tower Owners/ mgrs (3) North Etobicoke Resident Council Braeburn Neighbourhood Place Delta Family Resource Centre First Stage Child Care Centre RCHC Community Liaison Committee Thistletown Multi-Service Centre Toronto West Local Immigration Partnership Rexdale Youth Mentorship Developing Young Leaders of Tomorrow, Today Woodbine Entertainment Inc.

## **Public Engagement through Social Innovation Activities**



## **Public Engagement:** What We Learned in Terms of Climate Resilience



(e.g., what's important to you? What brings you joy?)

## Rexdale SNAP Action Plan: A Thriving Community Growing in Harmony with Nature and Neighbours



1. Open Space Rehabilitation and Green Infrastructure

2. Boosting the Neighbourhood's Sharing and Circular Economies

3. Retrofits for Sustainable/ Resilient Housing

4. Transformation of Streets and Intersections

## SNAP responds directly to Section A of the City's Resilience Strategy: "People and Neighbourhoods"

### ACTION A2.1 PRIORITY ACTION: NEIGHBOURHOOD RESILIENCE

Enhance the capacity of neighbourhoods to prepare for and recover from shocks through grassroots action and network building

At the heart of a resilient community is a robust set of social networks which help people address the challenges in their dayto-day lives, as well as those that occur in times of extreme stress.

> - WELLINGTON (NEW ZEALAND) REGION EMERGENCY MANAGEMENT OFFICE COMMUNITY RESILIENCE STRATEGY

### THE CHALLENGE

Toronto's ability to be resilient will rely on strong and prepared neighbourhoods. Connected communities with active local networks of engaged residents, community leaders, community centres, faith-based organizations, libraries, and local not-for-profits and organizations are better prepared to survive, adapt, and thrive in response to a shock.

### RESILIENCE CHALLENGES

EQUITY CLIMATE AND ENVIRONMENT

CIVIC COMMUNITY AND ENGAGEMENT NEIGHBOURHOODS

### BENEFITS

Communities are more prepared for shocks and stresses, and are able to recover from them more quickly

### LEADS

Resilience Office (City of Toronto)
 Social Development, Finance
 and Administration (SDFA, City of
 Toronto)

### KEY PARTNERS

- Parks, Forestry and Recreation (City of Toronto)
- Office of Emergency Management (OEM, City of

Toronto)

Toronto Public Health (TPH, City

In response, the City has made key investments to advance equitable economic, social, health, environmental, and engagement outcomes across Toronto neighbourhoods, including through the Toronto Strong Neighbourhoods Strategy 2020.

The City now needs to make critical complementary investments in neighbourhood-based resilience planning that advances more equitable outcomes for residents.

### THE ACTION

Through the Neighbourhood Resilience Initiative, the City will support organizations and grassroots leaders to help neighbourhoods prepare for, respond to, and recover from small to large-scale shocks. Community organizations are at the forefront of neighbourhood resilience and this action seeks to support the efforts, creativity, and expertise of these organizations. The Initiative will be a collaboration between Social Development, Finance and Administration (SDFA), the Office of Emergency Management (OEM), Toronto Public Health (TPH), the Resilience Office and community-based organizations and residents.

It will start with a two-year pilot project beginning in 2020. As part of the pilot, partners will come together to develop and implement an assessment and action planning process in three Neighbourhood Improvement Areas (NIAs). This initiative will bring together the knowledge of what a resilient community looks like from a variety of disciplines and perspectives, and develop a comprehensive process that neighbourhoods can use to build on strengths and address gaps. The pilot will identify opportunities for capacity building, coordination, action and increased local collaboration. It will also explore how City and non-City-owned community assets, like parkland, libraries, community centres, and child centres, can continue to play a role in building resilience.

### Community organizations as leaders

Community organizations are at the forefront of resilience action. Toronto's 140+ neighbourhoods are home to many community organizations who serve, represent, celebrate, and foster well-being in different ways. Many of these



When I heard that a snow

## **Neighbourhood Vulnerability Assessment**



**Conceptual Framework of Climate Change Risk:** 

Indicator-based assessment (as tested in County Court and Thornhill)

Exposure	Sensitivity	Adaptive Capacity
<ul> <li>Extreme heat trends (including the urban heat island effect)</li> <li>Precipitation trends</li> <li>Flooding risk</li> <li>Ice storms trends</li> <li>Vector-borne diseases trends</li> </ul>	<ul> <li>Perceptions of climate change risks</li> <li>Seniors 65 years or older</li> <li>Children under 14</li> <li>Residents living alone</li> <li>People who do not speak English or French</li> <li>People without a high school diploma</li> <li>Average household income and distribution</li> <li>Neighbourhood income inequality and polarization</li> <li>Housing tenure (owned, rented, other)</li> <li>Age of buildings and homes</li> </ul>	<ul> <li>Local assets and services</li> <li>Presence of air conditioning</li> <li>Mobility and access to transportation (including public transit and active transportation)</li> <li>Access to drinking water</li> <li>Access to food outlets</li> <li>Urban tree canopy coverage</li> <li>Access to greenspace</li> <li>Communications</li> <li>Sense of community</li> </ul>

### Exposure

## **Surface Heat Island**

- Surface temperatures recorded on a typical summer day in 2014 range from 27°C to a high of 49°C
- Some prominent "surface heat areas" include:
  - Albion Mall
  - Humbergrove Secondary School/Father Henry Carr Catholic School
  - Humber College



Issues identified by the community:

- Lack of shade/shelters for refuge along Kipling Avenue
- Lack of trees on HWY-27
- A lot the apartments along Kipling Ave do not have A/C



Exposure

## Flooding

- Top perceived risk within the neighbourhood
- 58 buildings are fully are partially located within the riverine flood plain
- Opportunity for flood outreach: pockets of residential properties north of Stevenson Road and along Anabelle Drive

Past flooding issues identified by the community:

- Kipling and Steeles: house flooding, roof leaks
- 2667 Kipling Ave: community room flooding
- Silverstone and Mt Olive: flooding from broken watermain
- Stevenson and Seguin: basement flooding
- Albion and Silverstone: flooding from broken watermain



## **Transit Accessibility**

- Transit accessibility is low and there is a ۲ cluster of low income households in this corner of the city
- Most residents commute to work by car • either as a driver or passenger
- Just under a third of residents commute to . work by public transit
- A small percentage of residents commute to . work by walking and even fewer by cycling

### Transit Accessibility and Low Income Households (Farber and Allen, 2019)



## **Food Security**

Example guotes from survey participants (mainly local agencies):

- "There is increasing demand for food banks... addressing immediate food needs is critical, but also important to address the root cause of the issue (income)"
- "The amount of food insecurity in the city is scary . right now. We project over 200,000 visits across our network in November."
- "Since the start of the pandemic, we have been ۲ centrally-coordinating the distribution of prepared hot meals and grocery hampers with culturallysensitive food options for the most vulnerable residents of North Etobicoke (low-income, seniors, families with multiple young children, people with disabilities, marginalized communities, etc.)





Education based programming for clients (e.g. healthy eating.		
financial management etc.)		
Food-box pickup/delivery type programs (e.g. Farmacy, Foo		
Share etc.)		
Surplus harvest sharing (e.g. Urban Harvest program that shares		
excess produce from North Etobicoke properties)		
Social Supermarket (e.g. co-op food market for the community)		
Grocery, food and meal pickups at food banks and community		
centres		
Gift cards (e.g. PC gift cards to clients in need)		
Advocacy for policy interventions that improve the incomes of		
low-income households		
Programs and activities that lead to better employment		
opportunities for community members in North Etobicoke		

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1 - Not a priority at all 2 – Low Priority 3 – Somewhat of a Priority 4 – High Priority 5 – Very High Priority



## **Neighbourhood Vulnerability Assessment**

Indicator	Overall Rating		
EXPOSURE (High is least desirable; Low is most desirable)			
Extreme Heat	High		
Precipitation and Flooding	High		
IceStorm	Medium-High		
Vector-borne Disease	Medium		
SENSITIVITY (High is least desirable; Low is most desirable)			
Perceptions of Climate Change	Medium		
Seniors	Medium		
Children	Medium-High		
Residents Living Alone	Medium-Low		
Language Barriers Medium-Hig			
Educational Attainment	High		
Household Income and Distribution	High		
Housing Tenure	Medium		
Age of Housing	ing High		
ADAPTIVE CAPACITY (Low is least desirable; High is most desirable)			
Local Assets and Services	Medium-High		
Presence of Air Conditioning	Medium		
Mobility and Access to Transit	Low		
Access to Drinking Water	High		
Access to Food Outlet	Medium		
Tree Canopy	Medium-High		
Access to Greenspace	High		
Communications	Medium		
Sense of Community	Medium-High		



## **Proposed Resilience Strategies**



## **Selection of Heat-Related Resilience Strategies**

### **1.** Greenspace, Urban Forest, and Shade

(Prevention, Mitigation, Preparedness)

- Plant and maintain **more diverse native species of trees**, especially in heat stress areas
- Facilitate **community tree planting** and local stewardship programs ٠
- Implement **more programming** to bring people out into nature
- Improve access to green space/ravines (e.g., better trails, information)
- Increase **shade** along streets, playgrounds, and parks, particularly in areas with high surface temperatures and vulnerable populations

### 2. Cooling Assets and Facilities

(Prevention, Mitigation, Preparedness)

- Create more splash pads, cooling centres, public pools, and drinking water fountains or bottle filling stations within the neighbourhood
- Rethink the design of **bus shelters** to provide year-round weather protection and serve as safe public spaces (e.g., with lighting, seating, etc.)
- Conduct **proactive maintenance** and testing of cooling facilities (e.g., splash pads and drinking fountains) to ensure they are operational





### Toronto and Region Conservation Authority

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## **Selection of Heat-Related Resilience Strategies**

### **3.** Climate Risk and Emergency Communications:

(Prevention, Mitigation, Preparedness, Response)

- Educate the public about **climate risks and what can be done** to reduce risk and enhance preparedness, building on COVID lessons
- Host **personal preparedness** events (e.g., at community centres)
- Establish a volunteer program (e.g., a buddy program) where volunteers would go knocking on doors to check on vulnerable populations and bring food, water and other necessary items (e.g., medication) during extreme weather events

### **4. Vertical Resilience**

(Mitigation, Preparedness, Response)

- Identify buildings/units where **indoor temperatures** can get too high for human health and identify effective cooling solutions (active or passive)
- Identify energy resilience solutions and backup power needs •
- Implement **community building and personal preparedness programing** for ٠ residents in MURBs
- Develop safe gathering spaces in MURBs ٠
- Implement urban agriculture and food-sharing solutions

### Are You at Risk of Flooding?

The best way to protect yourself and your family in case of a flood is by KNOWING YOUR RISKS, BEING PREPARED, and STAYING INFORMED.





KNOW YOUR RISKS

**BE PREPARED** 





### **Selection of Heat-Related Resilience Strategies**

### **5.** Resilience/Food Hubs:

(All phases of the disaster management cycle)

- Work with community partners to develop places where • residents can go for shelter and basic needs in case of an emergency, but also operate on an ongoing basis improving community resilience:
  - Provide access healthy, local food •
  - Offer gathering spaces •
  - Deliver community building and climate education • programing
- Potential locations identified  $\checkmark$
- ✓ Surveyed local champions/agencies re: capacity
- ✓ Explored what would make a successful resilience/food hub in Rexdale and what capabilities does it require?



### Renewable

Toronto and Region Conservation Authority

## Thank you

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## Q&A and Group discussion

• Experiences regarding primary care or community pharmacy in the context in heat

- Please record your responses in your group's section of the google doc.
- You can list your responses beneath each question or place them on the grid to classify them by the impact and effort required.
  - What are potential roles for primary care teams?
    - For each suggestion, what would be required? (supports, resources, training, funding, etc.)
  - What are potential roles for community pharmacists?
    - For each suggestion, what would be required? (supports, resources, training, funding, etc.)

# Wrap-up & Key Takeaways



Please fill out the survey to provide feedback and inform the Primary Care Sustainability Working Group







