Preparing for Health Impacts of Heat in Toronto

Presented by: Stephanie Gower
Healthy Public Policy
Toronto Public Health

Photo Credit: theweathernetwork.com

October 24, 2013
Toronto’ Climate is Changing

- Extreme heat contributes to an estimated 120 premature deaths in Toronto each year
  - Could double by 2050 and triple by 2080

Data Source: Environment Canada
Toronto Public Health and Extreme Heat

- TPH has a number of relevant roles:
  - Operational
    - Co-ordinate HARS
    - Program work with vulnerable populations
  - Planning
    - Emergency planning and preparedness
  - Policy Development for a Healthier City
    - Research to support healthy public policy
  - Advocacy
    - At a City level
    - Advocacy to other agencies and levels of government
  - Collaborate with many partners on each of these
Decisions and actions of varying timescales

- **Hours or days**
  - Calling alerts
  - Declaring emergencies

- **Seasonal**
  - Pre-season planning
  - Post-season evaluation and debrief

- **Decades**
  - Enhancing resilience of built form
  - Building social and community resilience
Toronto Public Health coordinates a Hot Weather Response Plan every summer

- Alerts those at risk to take precautions
- Education and outreach to at-risk populations
- Partnership with community and other service agencies
Outreach and Response actions depend on calling Alerts and level of Alert.
• Possibility of an extended heat emergency

• ..in combination with a power outage?
Short-term forecasts and large-scale events?

2003 Toronto SARS Benefit Concert – Rolling Stones
Photo Credit: tomhopkins
• Most actions that will be taken when a Heat Alert is declared are identified before the heat season begins.
Which of the following actions, if any, do you take to help protect yourself against the effects of heat on hot days?

<table>
<thead>
<tr>
<th>Action</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turn on air conditioner</td>
<td>88%</td>
</tr>
<tr>
<td>Keep shades or drapes drawn and blinds closed on the sunny side of your home</td>
<td>80%</td>
</tr>
<tr>
<td>Drink lots of water and/or natural fruit juices even if you don't feel very thirsty</td>
<td>84%</td>
</tr>
<tr>
<td>If you must go outside, stay in the shade as much as possible</td>
<td>83%</td>
</tr>
<tr>
<td>Keep lights off or turned down low</td>
<td>78%</td>
</tr>
<tr>
<td>Avoid going out in the sun or heat when possible</td>
<td>78%</td>
</tr>
<tr>
<td>If you must go outside, plan to go out early in the morning or evening when it is cooler</td>
<td>72%</td>
</tr>
<tr>
<td>Avoid intense or moderately intense physical activity</td>
<td>71%</td>
</tr>
<tr>
<td>Take a cool bath or shower periodically or cool down with cool towels</td>
<td>57%</td>
</tr>
<tr>
<td>Keep windows slightly open</td>
<td>53%</td>
</tr>
<tr>
<td>Turn on a fan with windows open</td>
<td>50%</td>
</tr>
<tr>
<td>Go to air conditioned or cool places such as shopping malls, community centres or a friend's place</td>
<td>45%</td>
</tr>
<tr>
<td>Sleep in the basement, or coolest room if there is no basement</td>
<td>49%</td>
</tr>
<tr>
<td>Visit a local swimming pool</td>
<td>25%</td>
</tr>
</tbody>
</table>
Barriers faced by clients

What, if anything, would you say are some of the main barriers your clients experience in protecting themselves against the adverse effects of heat and hot weather?

- Finances/ low income: 48%
- Limited access to a cooling center/ lack of transportation: 37%
- No air conditioning/ heat reduction/ cooling resources: 33%
- Lack of information/ education: 27%
- Poor health/ disabilities: 19%
- Poor housing conditions/ homeless: 18%
- Mental illness/ addiction: 16%
- Not drinking enough water: 11%
- Lack of support/ help in the community: 5%
- Language barriers: 4%
Prioritizing areas for interventions: Heat Vulnerability

Vulnerability Index - includes information about

- Exposure
- Sensitivity
Long-term, Strategic Actions

- Resilient Infrastructure supports better health outcomes

- Resilient communities and strong social infrastructure support better health outcomes
Example: Heat and Older Towers in Toronto

Challenges arise from

– Building Design
– Regulations
– Environmental Concerns
Elements of this work received funding support from the Government of Ontario and Natural Resources Canada. Such support does not indicate endorsement by the Government of Ontario or Natural Resources Canada.