

Taking Action, Heat Alert and Response Systems

Heat, Health and Collaborative Responses for Resilient Communities

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Health Canada's Heat Program

- Since 2008, Health Canada has been leading an initiative to enhance community and individual resiliency to extreme heat events.
- The core goal of the Heat Program is to support our partners in implementing and advancing evidence-based Heat Alert and Response Systems (HARS) in communities across Canada.

The Health Impacts of Extreme Heat

Extreme heat events in Canada

•Lower mainland British Columbia

- Eight days of extreme heat in in July 2009 resulted in an estimated 156 excess deaths (Kosatsky 2012)

•**Southern Quebec** - An extreme heat event in July 2010 resulted in an estimated 280 excess deaths (Bustinza et al. 2013).

Heat illnesses include:

- Heat exhaustion,
- Heat fainting,
- Heat edema (swelling of hands, feet and ankles)
- Heat rash and heat cramps (muscle cramps)
- Heat stroke

Interdepartmental collaboration to advance HARS

Heat warnings



Environment and
Climate Change Canada

Goal: To modernize Environment and Climate Change Canada's Heat Warning Program



Heat response



Health
Canada Santé
Canada

Goal: Collaborate and support Provinces and Territories to advance HARS and protect individuals and communities from the health impacts of extreme heat.

How does a HARS work?

1. **ECCC & Health Canada establish an alert trigger** based on the findings from a heat-health analysis and community and region-specific weather conditions.



2. **ECCC communicates the potential for a heat warning** to health officials and other decision-makers a few days prior to a heat event, allowing enough time for partners to mobilise and prepare a response.



3. **Health authorities and other key community partners respond to the heat warning** by activating response plans and putting in place health protective actions.

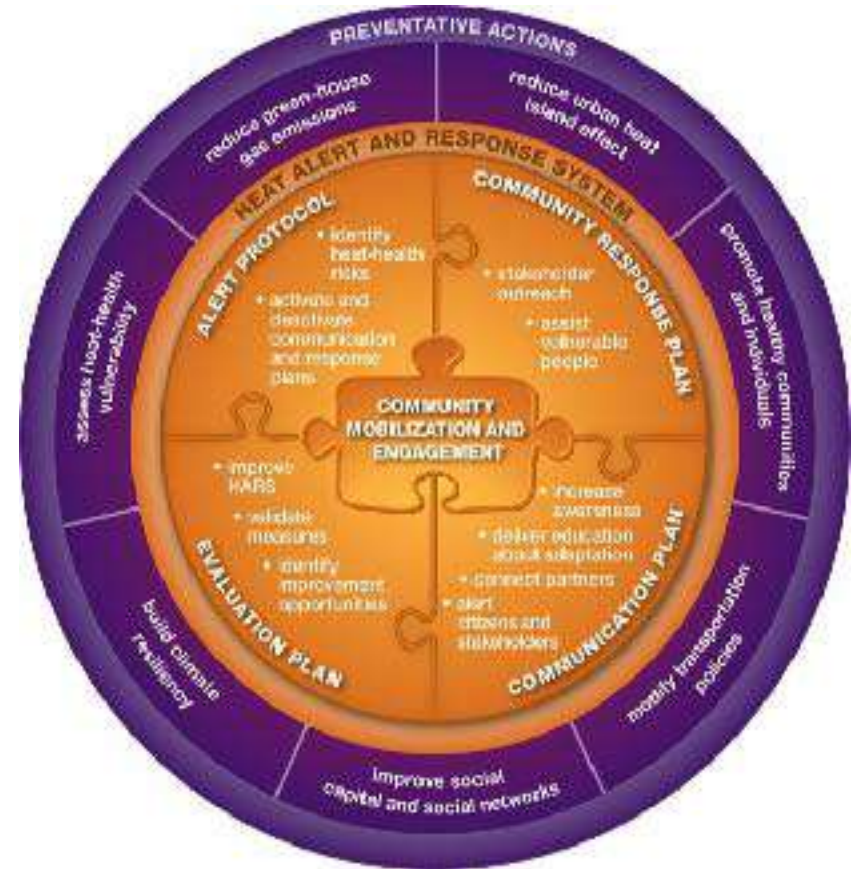


A community's heat response plan provides information on the actions that the lead agency and community partners will take to reduce heat-related illness and death when a heat warning is called.

What is HARS and how is it developed?

Heat Alert and Responses Systems (HARS)

alert the public about the risks, direct the community response to help vulnerable populations, and provide individuals with information and other resources to help them take protective actions before and during an extreme heat event.



What is HARS and how is it developed?

Core Elements of HARS:

Community Mobilization and Engagement

- Coordinating agency
- Identification of community needs
- Identification and recruitment and engagement of stakeholders
- Mobilize community
- Pre-heat season preparations



What is HARS and how is it developed?

Core Elements of HARS:

Alert Protocol

- Identify heat-health risks and vulnerabilities
- Activation Protocol
 - Alert the public, government officials, and stakeholders
 - Initiate pre-determined actions
 - Communication plan
 - Response plan
- Deactivation Protocol



What is HARS and how is it developed?

Core Elements of HARS:

Community Response Plan

- Facilitates Actions
 - Establishes formal community response plan
 - Stakeholder outreach
 - Community mobilization
- Assisting Vulnerable Populations



What is HARS and how is it developed?

Core Elements of HARS:

Communication Plan

- Alert Citizens and Stakeholders
 - Heat Health Messaging with Heat Alerts issued by ECCC
 - Establish formal communication plan
 - Media release
 - Social Media
- Connect Partners
- Increase Awareness
- Deliver Education about Adaptation

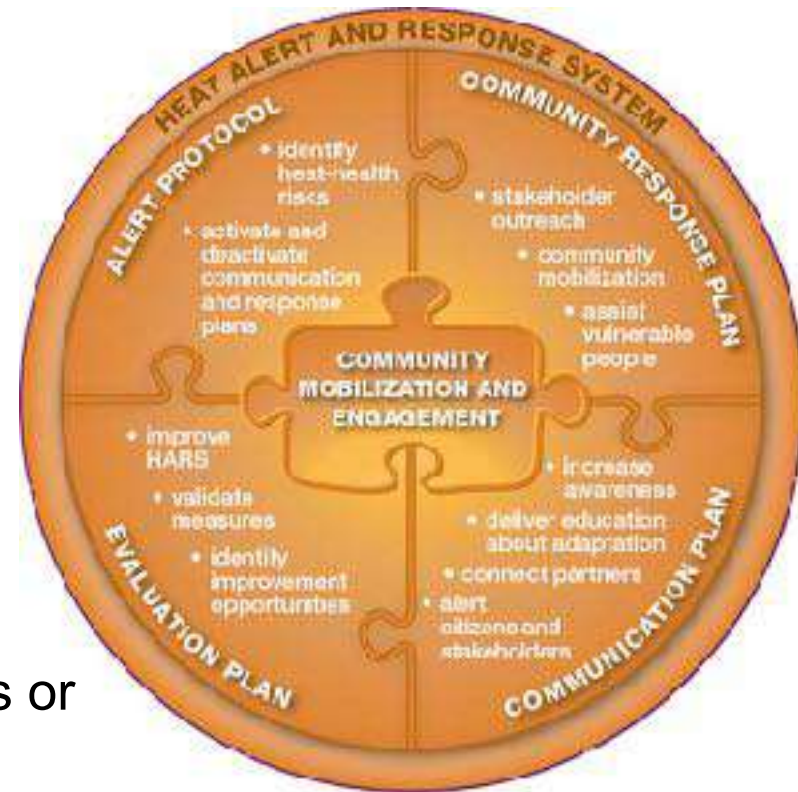


What is HARS and how is it developed?

Core Elements of HARS:

Evaluation Plan

- Improve HARS
 - Real-Time Health Surveillance
 - End of Season Evaluation
- Validate Measures
 - Assess HARS Activities
 - Timely, Relevant, Effective
 - Contribute to Reduction of Heat illness or death
- Identify Improvement Opportunities
 - Enhancing HARS

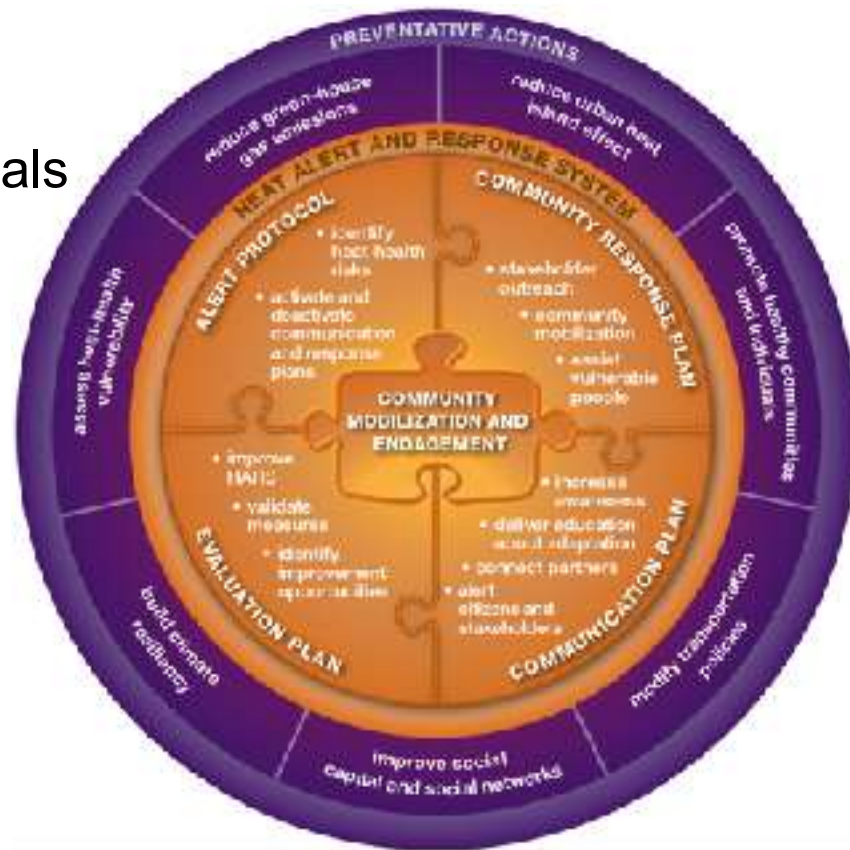


What is HARS and how is it developed?

Core Elements of HARS:

Preventative Actions

- Assess Heat Health Vulnerability
- Reduce Urban Heat Island Effect
- Promoting Healthy Communities, Individuals
- Modify Transportation Policies
- Improve Social Capital, Social Networks
- Reduce Green-House Gas Emissions
- Build Climate Resiliency



HARS In Communities across Canada

Examples of Response Activities:

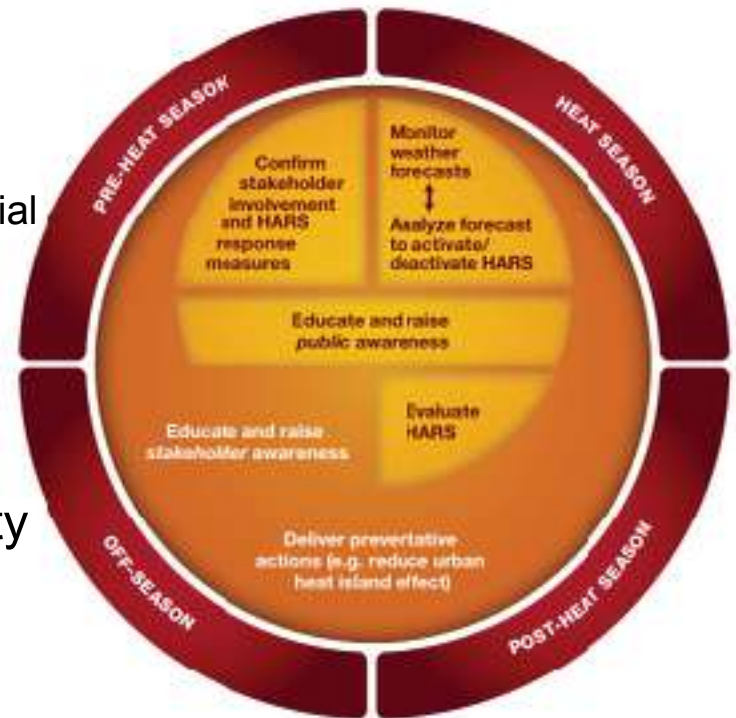
1. Extending hours of air conditioned public spaces
2. Distribution of targeted Information
3. Opening of cooling centres
4. Increase access to drinking water
 - Water fountains, water stations
5. Home visits to Seniors



Source: City of Leduc Website

HARS in Communities Across Canada

- HARS have been developed by communities in Canada to prepare for extreme heat events
- Multi-sectoral Relationship
 - Engagement broad stakeholders
 - Federal, Province/Territory, Municipal governments, Community Health, and Social Service Providers
 - Identification of community needs
 - Identification of vulnerable populations
 - Identification of appropriate Actions
 - Implementation of Actions and Response
 - Building and Strengthening community and individual resiliency to extreme heat events.



Heat-Health Publications



<http://www.hc-sc.gc.ca/ewh-semt/pubs/climat/index-eng.php>

Thank you!

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