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Extreme heat events: Media communication with impact

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Environmental Health & Knowledge Translation Scientist

NCCEH webinar
May 29, 2025 - 12 PM PT

Land acknowledgement

I live, work, and play as a white settler and uninvited guest on the ancestral, unceded lands of the Coast Salish peoples, the xʷməθkʷəy̓əm (Musqueam), Sḵwx̱wú7mesh (Squamish), and səlilwətaɬ (Tsleil-Waututh) Nations, who have stewarded these lands for countless generations, and continue to do so.

Outline

- About extreme heat event and media communication
- Findings from NCCEH study interviewing media professionals
- Dr. Anne-Marie Nicol
- Q&A

What kind of organization do you work/study at?

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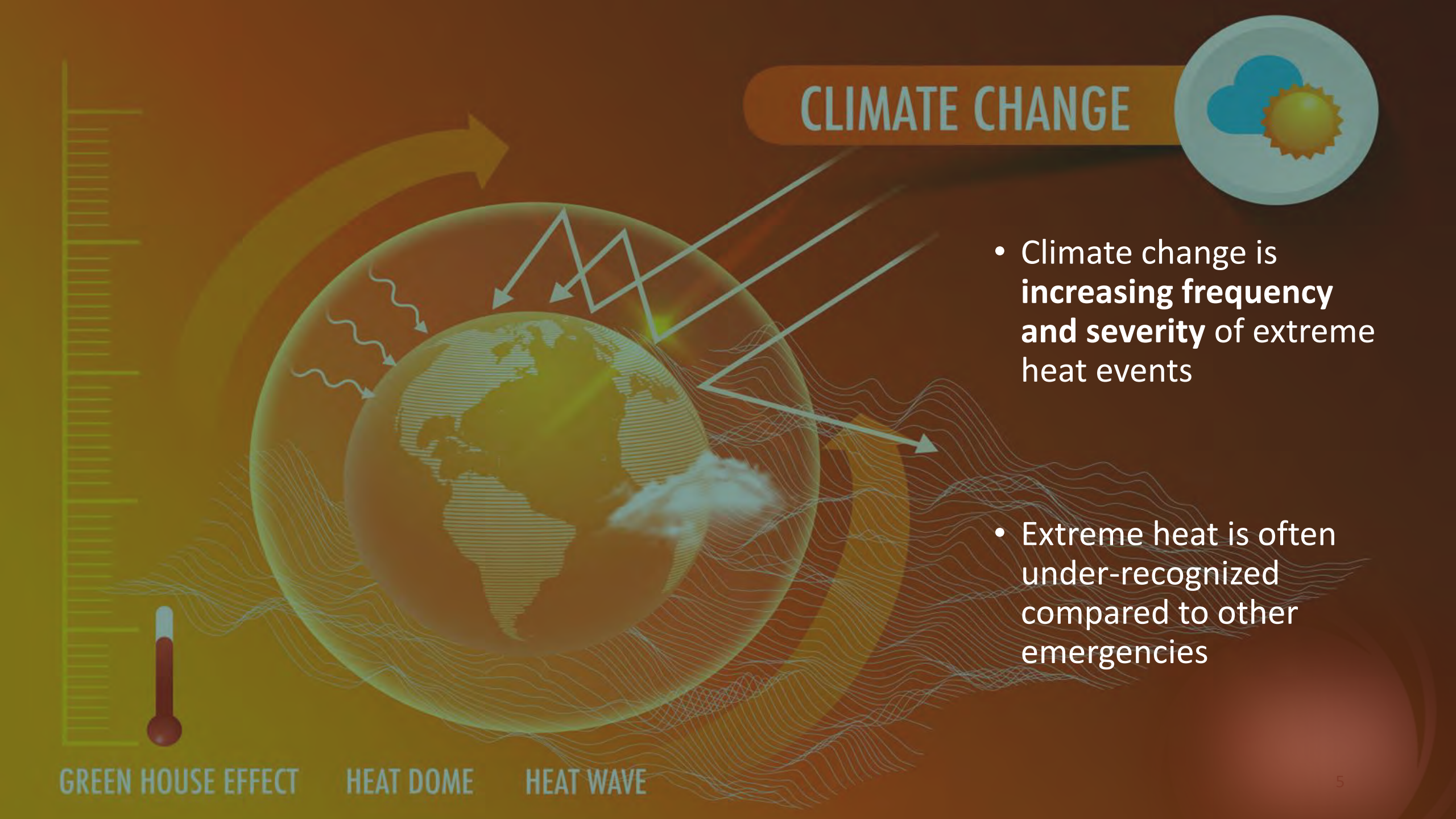
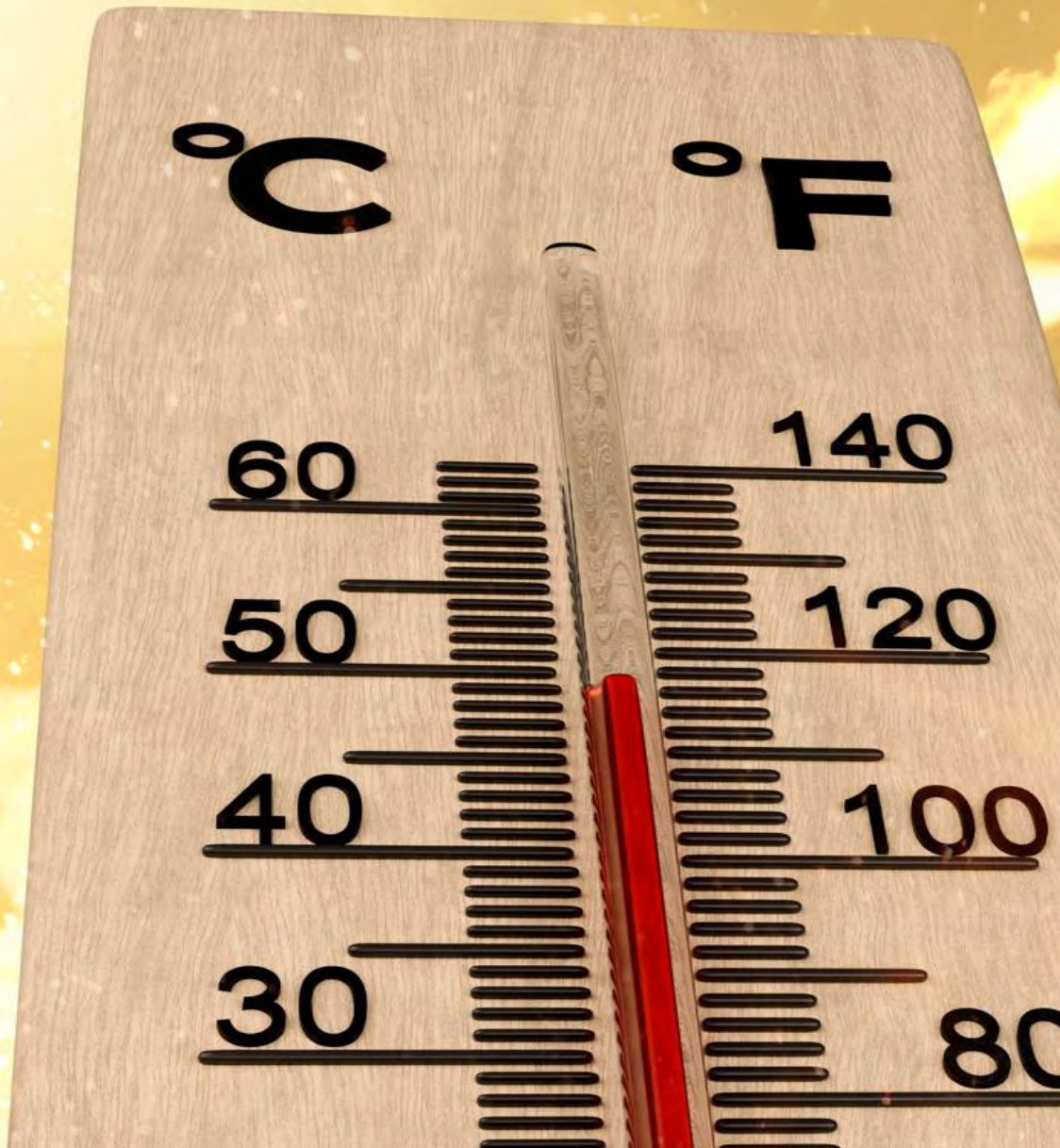


- Climate change is **increasing frequency and severity** of extreme heat events

- Extreme heat is often under-recognized compared to other emergencies

What is an extreme heat event?

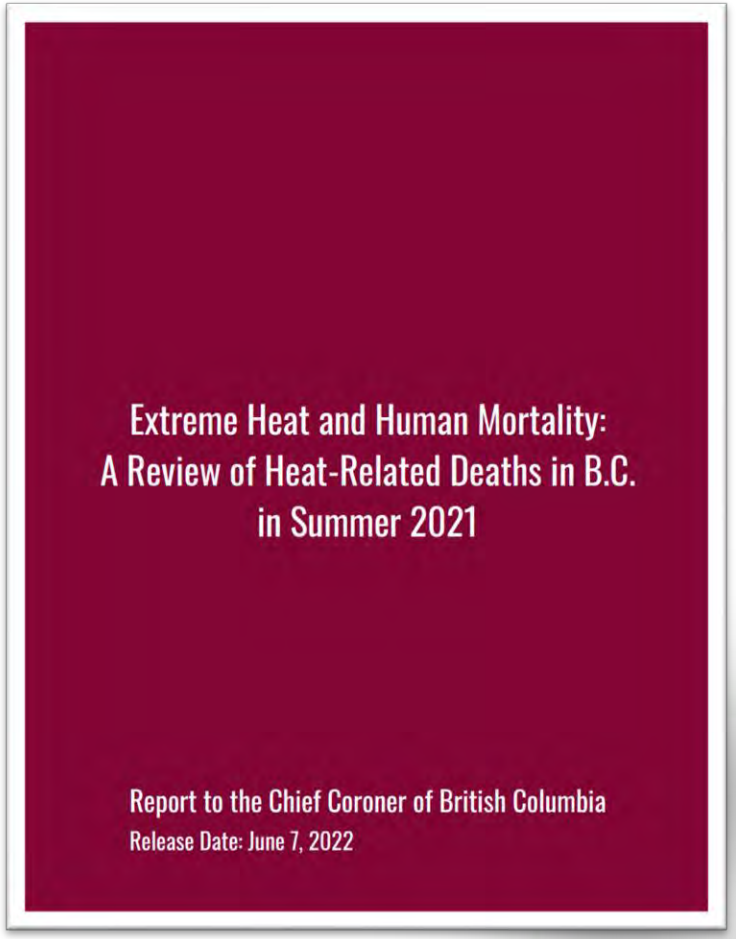
- Prolonged period with unusually high temperatures, well above seasonal norms
  - **Duration** – usually 2 or more consecutive days
  - Both **daytime highs and nighttime lows** exceed thresholds
  - High **humidity**, low wind speed, high radiant load, **urban heat island effect**
  - Local climate norms, season, and population adaptability/**acclimatization**



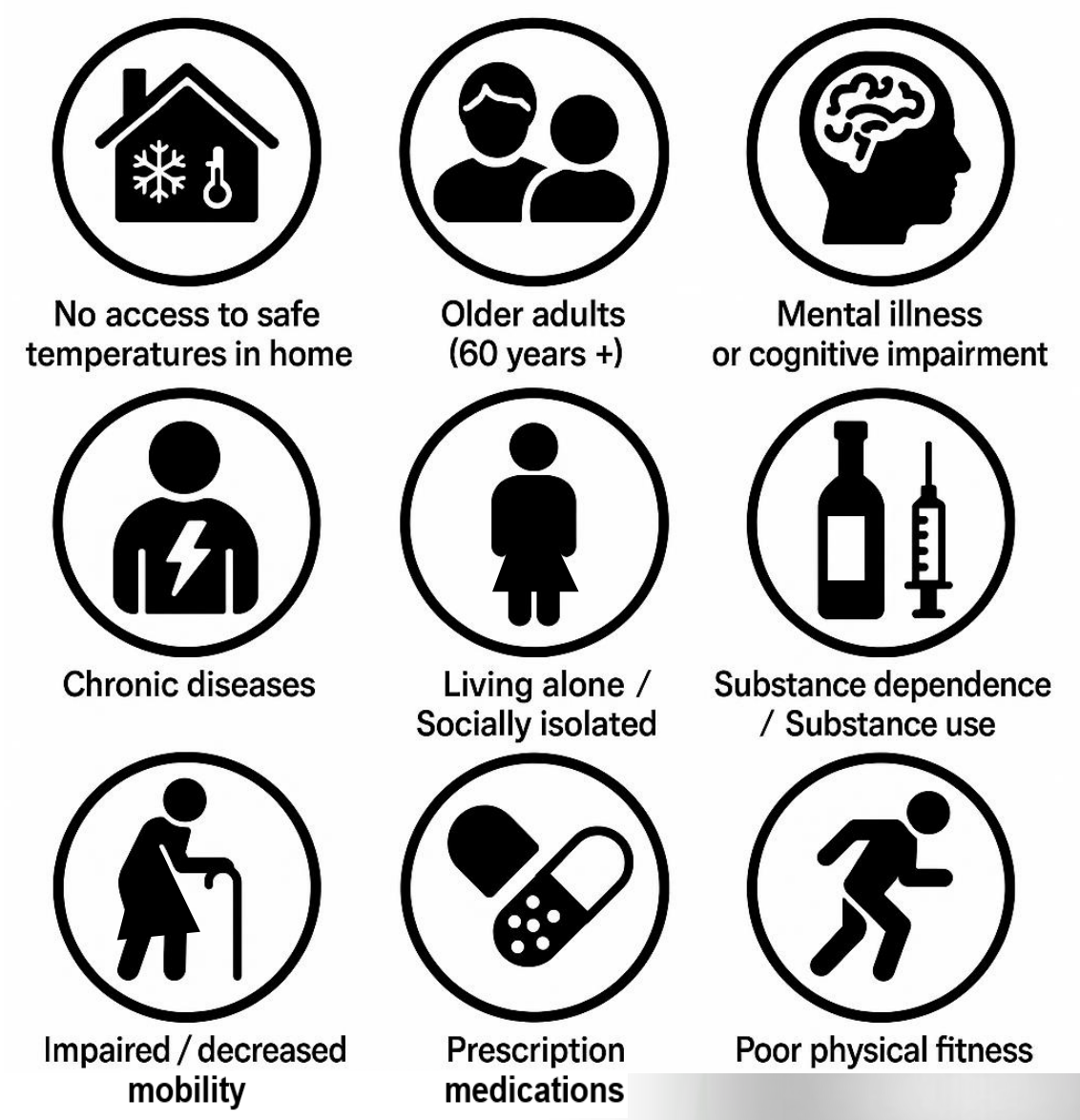
Extreme heat is a public health priority

2021 Heat Dome

- 619 deaths in BC
- 98% deaths caused by indoor heat injury in a residence
- 67% were over 70 yrs
- >50% lived alone



People with increased heat-health risk need to be prioritized



What sources do you think your relatives and friends use for information on extreme heat/ heat warnings?

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Media's role in extreme heat communication

- Media coverage shapes public perceptions of the risks
- Inform, educate, and motivate the public ***before, during, and after*** extreme heat events
- Journalists, broadcasters, photojournalists, editors, and producers, assignment editors etc. are all **key messengers**

Media's role in extreme heat communication

- Public preparation is key
- Preparation can be improved through better public understanding of:

  - ❑ heat alerts/heat warnings
  - ❑ populations at risk
  - ❑ the signs and symptoms of heat-related illnesses
  - ❑ effective individual/community interventions
  - ❑ when to seek medical care

Lacking the right messaging

RESEARCH REPORTS

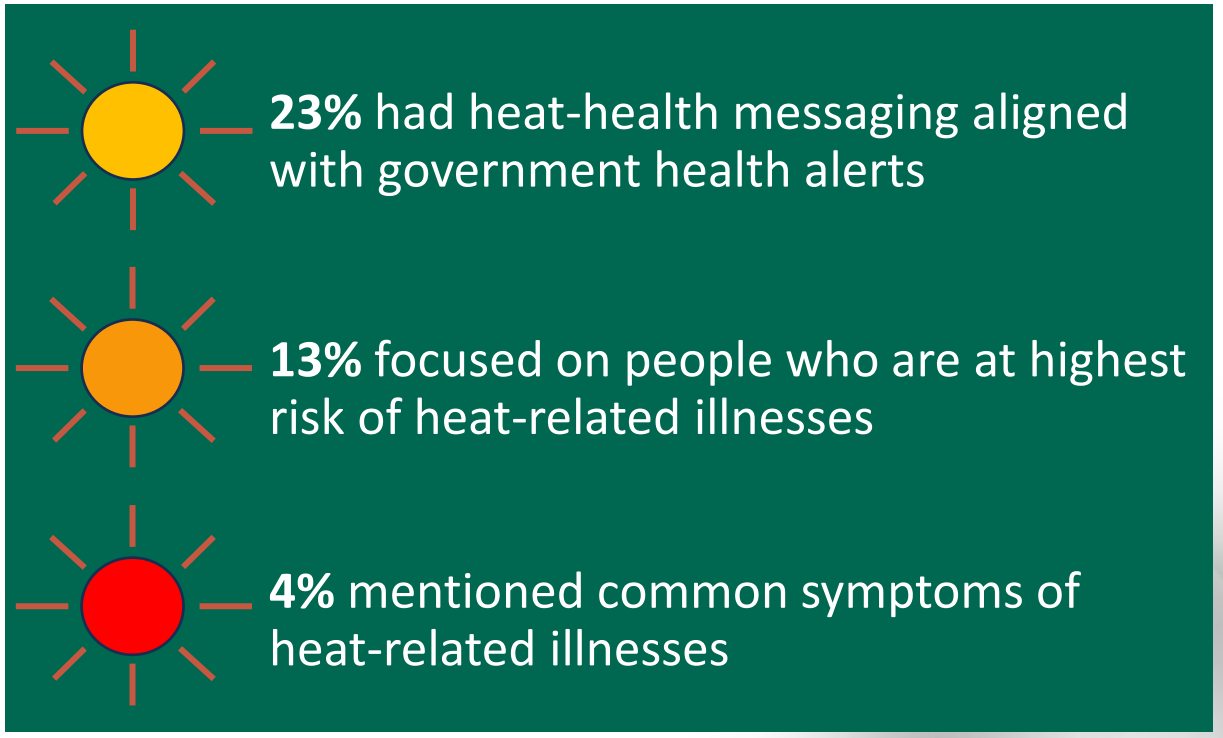
Hot Topic: A Systematic Review and Content Analysis of Heat-Related Messages During the 2021 Heat Dome in Canada

Tetzlaff, Emily J. MHK; Goulet, Nicholas BSc; Gorman, Melissa MPH; Richardson, Gregory R. A. MCIP, RPP; Enright, Paddy M. MSc; Meade, Robert D. PhD, MPH; Kenny, Glen P. PhD

Author Information

Journal of Public Health Management and Practice 30(2):p 295-305, March/April 2024. | *DOI:* 10.1097/PHH.0000000000001817

OPEN SDC



23% had heat-health messaging aligned with government health alerts

13% focused on people who are at highest risk of heat-related illnesses

4% mentioned common symptoms of heat-related illnesses

Inappropriate imagery is a constant issue…

- **European 2019 extreme heat events:**

  Content/image analysis of 245 articles

  The most common image was:

  People having fun in or by water… thus framing heat events as “fun in the sun.”

THE GEOGRAPHICAL JOURNAL

Royal Geographical Society with IBG

ARTICLE | Open Access

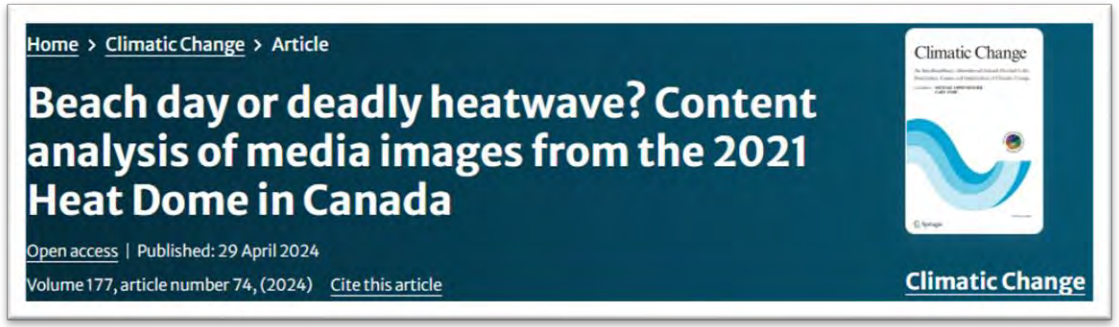
Visual portrayals of fun in the sun in European news outlets misrepresent heatwave risks

Saffron O'Neill, Sylvia Hayes, Nadine Strauß, Marie-Noëlle Doutreix, Katharine Steentjes, Joshua Ettinger, Ned Westwood, James Painter

First published: 18 October 2022 | https://doi.org/10.1111/geoj.12487 | Citations: 4


Europe heatwave: Where is the hot weather coming from and when will it end?
Wetenschap linkt extreem weer aan klimaatverandering
Kans op herhaling hittegolf van vorige week jaarlijks 1 tot 2 procent
Rode Kruis: Gemeenten moeten kwetsbare mensen voorbereiden op hitte
STRANDBAD WANNSEE

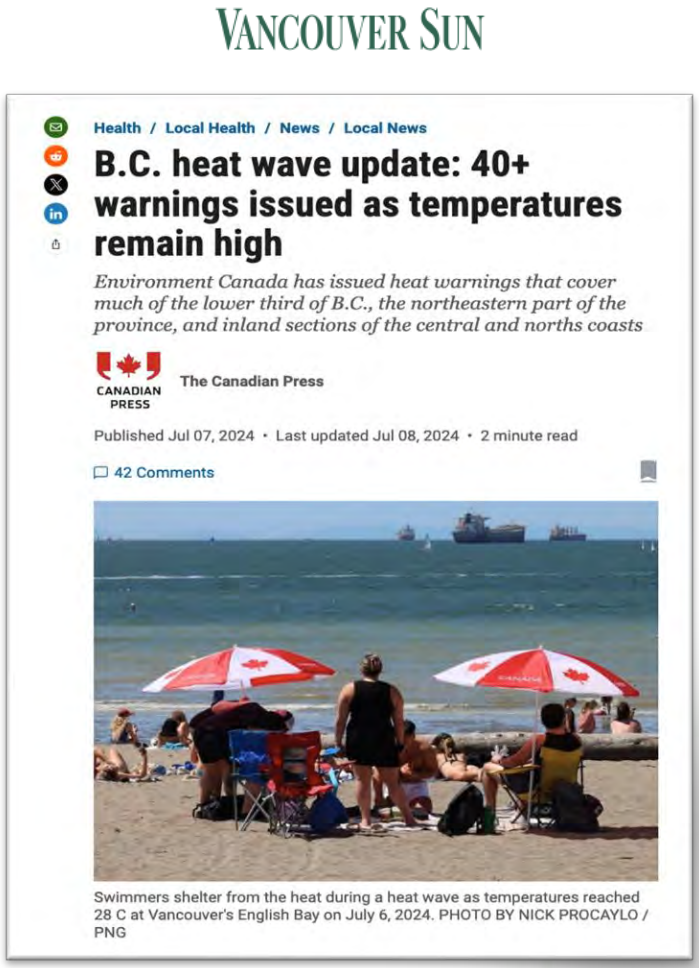
Inappropriate imagery is a constant issue



- **2021 Heat dome in BC**

Content/image analysis of 825 articles

- **16%** of images implied heat was a danger
  - 46% of these depicted human suffering
- **4%** of images contained actions to reduce risks of indoor heat



Menu CBC

NEWS Top Stories Local Climate World Canada Politics Indigenous

British Columbia

Environment Canada warns of daylong hot spell in much of B.C.

Weather agency says much of the province could see temperatures between 5 C and 12 C above normal

Michelle Morton · CBC News · Posted: May 28, 2025 4:00 AM PDT | Last Updated: 6 hours ago

Environment Canada says it could be up to 12 C hotter than seasonal norms on Wednesday in much of B.C. (Ben Nelms/CBC)

It's going to be brief, but a hot one is on the cards for much of B.C. on Wednesday.

WEATHER

Earth could see more years of extreme heat, top weather experts warn

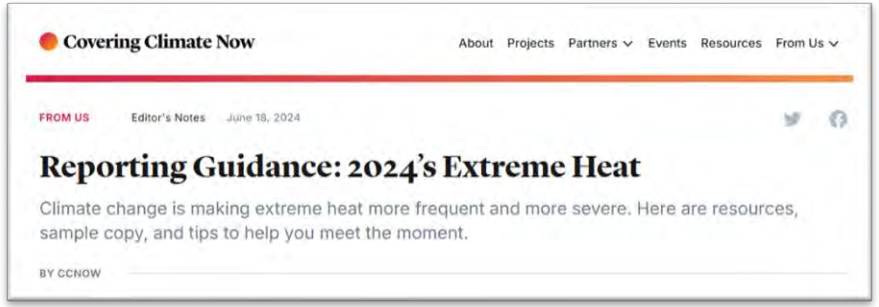
By Seth Borenstein • The Associated Press

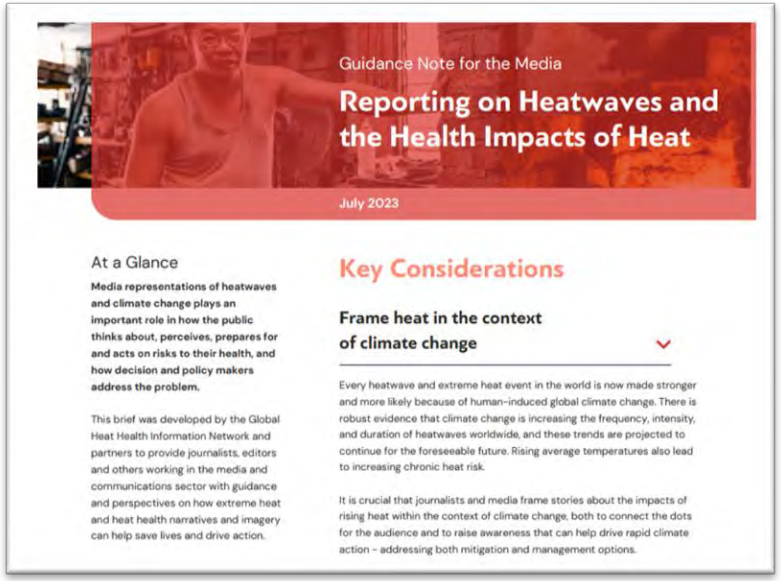
Posted May 28, 2025 5:46 am · Updated May 28, 2025 7:46 am · **3 min read**

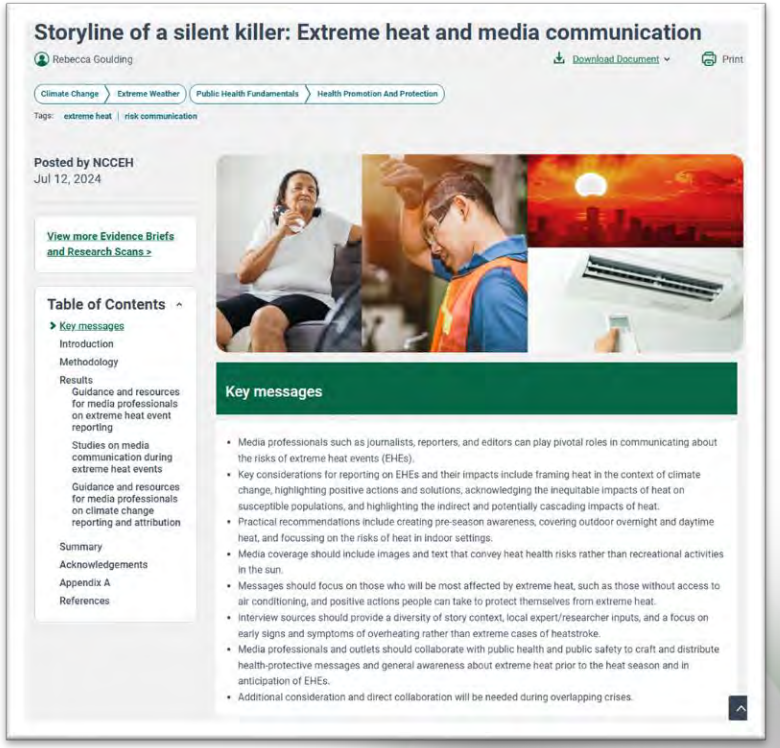
RELATED: What are 'wet-bulb temperatures' and why can they be so deadly? – Jun 5, 2024

Guidance and recommendations

GLOBAL HEAT HEALTH INFORMATION NETWORK







GHHIN Key reporting considerations

Global Heat Health Information Network:

- Frame heat in the **context of climate change**
- Highlight **actions and solutions** such as accessing cooling spaces or low-cost cooling techniques
- Give attention to **inequitable impacts** of extreme heat on at-risk populations
- Portray the **indirect impacts** of extreme heat events

GHHIN Practical recommendations

Timing: Pre-season awareness coverage

Coverage: Add a focus on nighttime temperatures and indoor settings

Imagery: Use more realistic imagery of the dangerous impacts of extreme heat and use positive action imagery

Focus: Balance focus between acute EHEs and chronic impacts of heat exposure

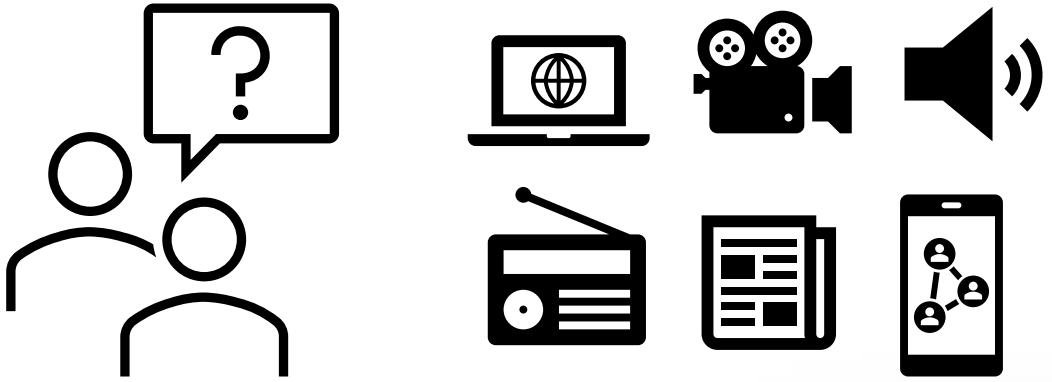
Interviews: Range of contextual interviews for story perspectives and focus on local experts and researchers

What do media professionals in Canada think?

Project purpose

Objectives:

- Improve understanding of ***how the media communicates*** about extreme heat events
- Identify key ***challenges or gaps*** related to extreme heat reporting
- Highlight ***solutions*** to address these challenges



Project methods

- 12 expert interviews – semi structured
- Responses were analyzed in aggregate and reported anonymously
- Common themes across interviewees were identified, noting the frequency and additional relevant context

Approaches media use for reporting on extreme heat

Write local, human-focused stories about people at risk with practical tips and positive solutions (7/12)

Pitching and assigning follows similar rules as other news with focus on timeliness, proximity, and relevance (5/12)

Approaches media use for reporting on extreme heat

- Attend pre-heat season briefings (6/12)
- Use experts from health authorities, hospitals, and universities — prioritizing local experts if possible (5/12)
- Use impactful and authentic in-house visuals (4/12)

Audience disengagement and normalization of heat

- **Doom-focused climate narratives** can cause disengagement (4/12)

- Constant need for the "**new and now**" story with relevant angles (3/12)

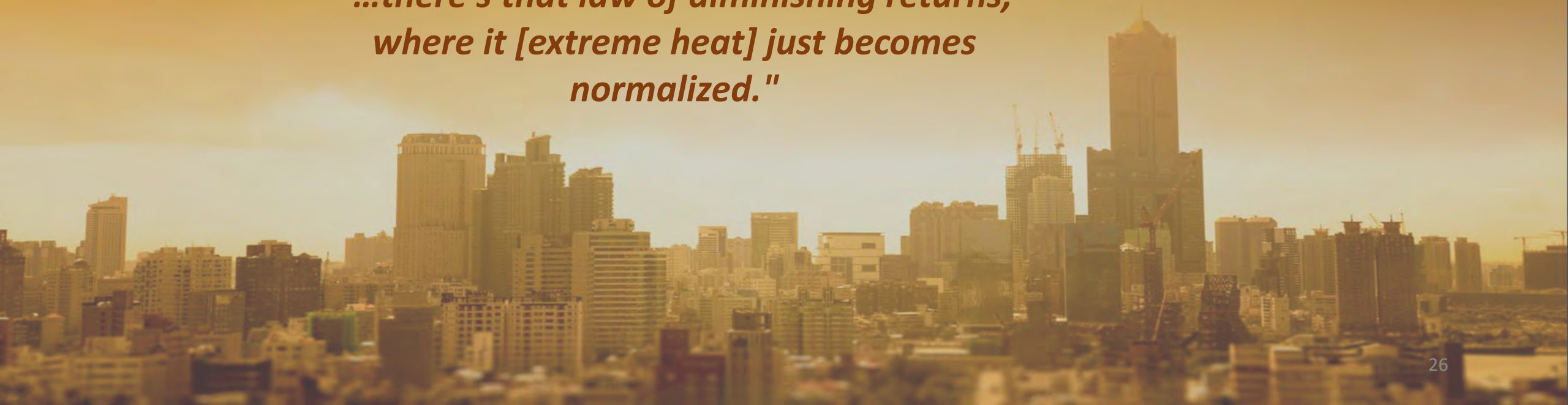
- **Middle-class perspectives** – portray extreme heat positively, while underrepresenting at-risk populations (2/12)

- **Level of audience interest is low** – further desensitization possible as heat risks are **normalized** (2/12)

…"the adage is: "If it bleeds, it leads", so there's this old reflex that if you put something dramatic or conflict-oriented in the headline, people are going to click on it.

But we're finding that this is turning people off."

"…there's that law of diminishing returns, where it [extreme heat] just becomes normalized."



Barriers to timely, inclusive and accurate information

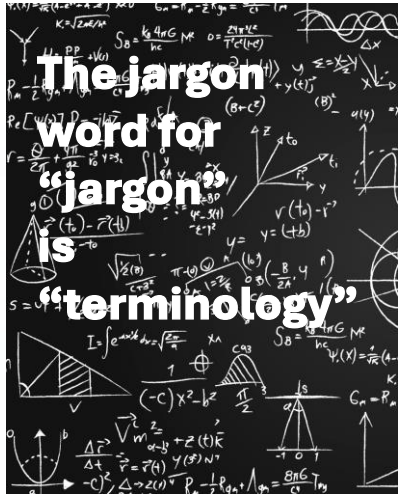
- The **Meta news ban** has disrupted news dissemination – particularly for real-time updates (6/12)

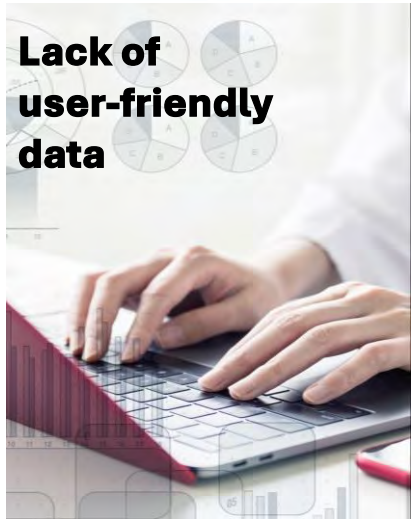
- **Limited resources, rigid approval processes** within public health (4/12)

- **Diverse audiences not being reached** – lack of multilingual support, delayed translations, and local representation (3/12)

- **Misinformation, AI-generated content, algorithm-driven media, and disinformation** challenge reporting and reach (3/12)

Gaps in expert access, data, and visuals





- Lack of timely **access to experts** or collaboration (5/12)
- Problematic use of **jargon** by experts (2/12)
- Need for improved access to user-friendly**, reliable health data and information** (4/12)
- **Visual storytelling** of extreme heat is challenging – tight budgets and fast-paced reporting (5/12)

“We like to have good statistics, and we like to have the references for them too. So, one thing that always comes up is, for example, heat deaths. And heat deaths are measured differently everywhere […] As in what is considered a heat death?”

"A challenge in reporting on extreme heat and anything climate related, really, is the interviews, and actually getting the experts to speak in a way that is accessible."

General time, staffing, and resource constraints

- **Current media landscape:** time, staffing, and resource constraints (5/12)

- **Climate links often missed** in fast-paced news cycles (2/12)

- **Low audience interest** for early, pre-season heat coverage (2/12)

Human-centred and inclusive storytelling

- Avoid the “doom and gloom” narrative → need **solution-oriented journalism** putting people in the centre (3/12)
- Focus on those at higher risk, the urgency of heat risks, and peer-networks (2/12), **telling local level stories** (2/12)
- Engage **diverse, multilingual, and relevant audiences** including Indigenous experts and those with lived and living experience (2/12)
- Experts should **avoid the use of jargon** (2/12)

"Most of the emergency warnings provided by government officials are/were in English or French. One of the solutions for quicker and more effective outreach to ethnic communities is to provide material translated in more third languages."

"…I just want to emphasize regarding resources that the peers themselves […] are such a great resource with lived experience and connections. …it would be key to engage those people."

"And it comes back to regional storytelling – it works in community because there's more credibility and trust. I would say similarly, you know, having the right experts from Indigenous communities to be able to speak to this in a good way."

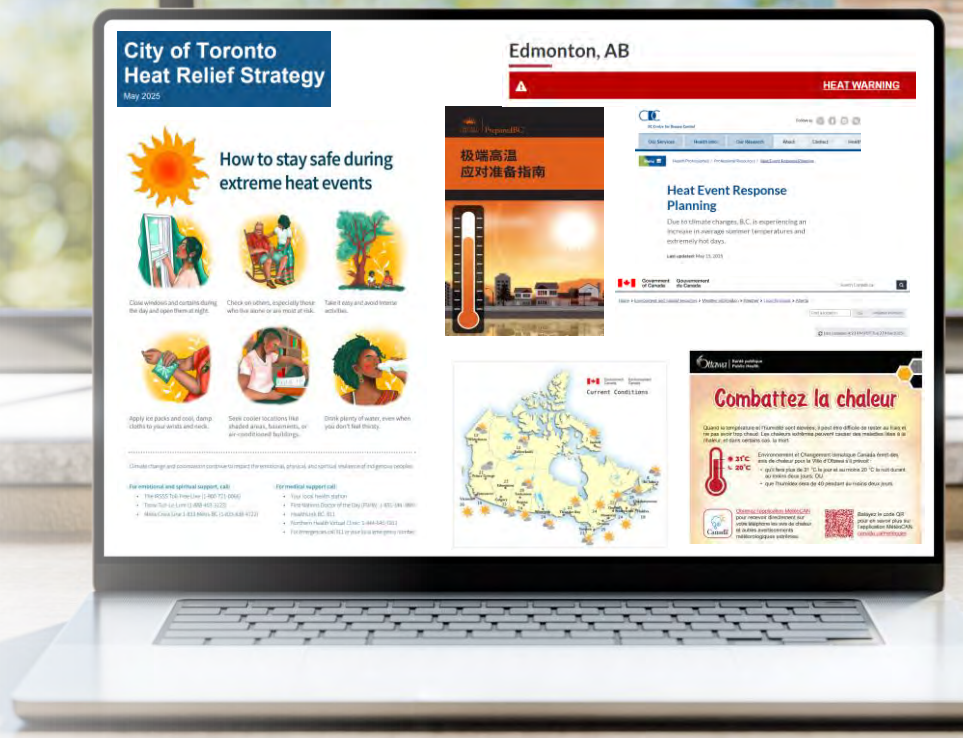
Access to data, info, and resources

- Create an **updated directory** of diverse, local experts, visuals, stories and pre-emptive support from communication teams (7/12)

- Provision of reliable, **real-time data** and simplified, easily **searchable guides** on heat-related information (6/12)

- Information from public health should be shared in **press releases and published on social media** (4/12)

“Many journalists have to produce multiple stories in a single day, so if there’s an upcoming extreme heat event, they need quick, reliable information they can easily draw from.”



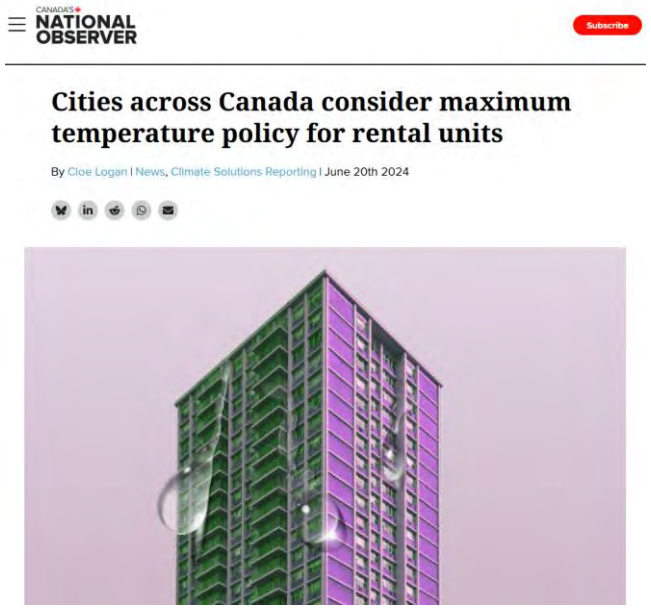
Support climate literacy & counter misinformation

- Reliable **climate science resources**, workshops and webinars, **myth-busting information** (5/12)

- Counter misinformation with **ethical standards**, better correction mechanisms → promotion of **transparency, trust in science, and media literacy** (2/12)

“And so, there’s a piece here too, for communication professionals to sign codes of ethics to understand the consequence of not acting in a good way.”

In the right direction…



Key takeaways

- Media professionals strive to write local, human and solution-focused stories, based on accurate data and expert input, with appropriate visuals
- They face challenges in covering extreme heat:
  - limited resources and data, expert and imagery access
  - engagement fatigue
  - barriers to reaching diverse communities—especially with the added impact of the Meta news ban
- They recommend building:
  - local expert networks
  - improving access to reliable data and visuals
  - telling inclusive, community-centered stories
- *Strong collaboration* between media and public health can boost trust, counter misinformation, improve climate literacy, and support those most at risk

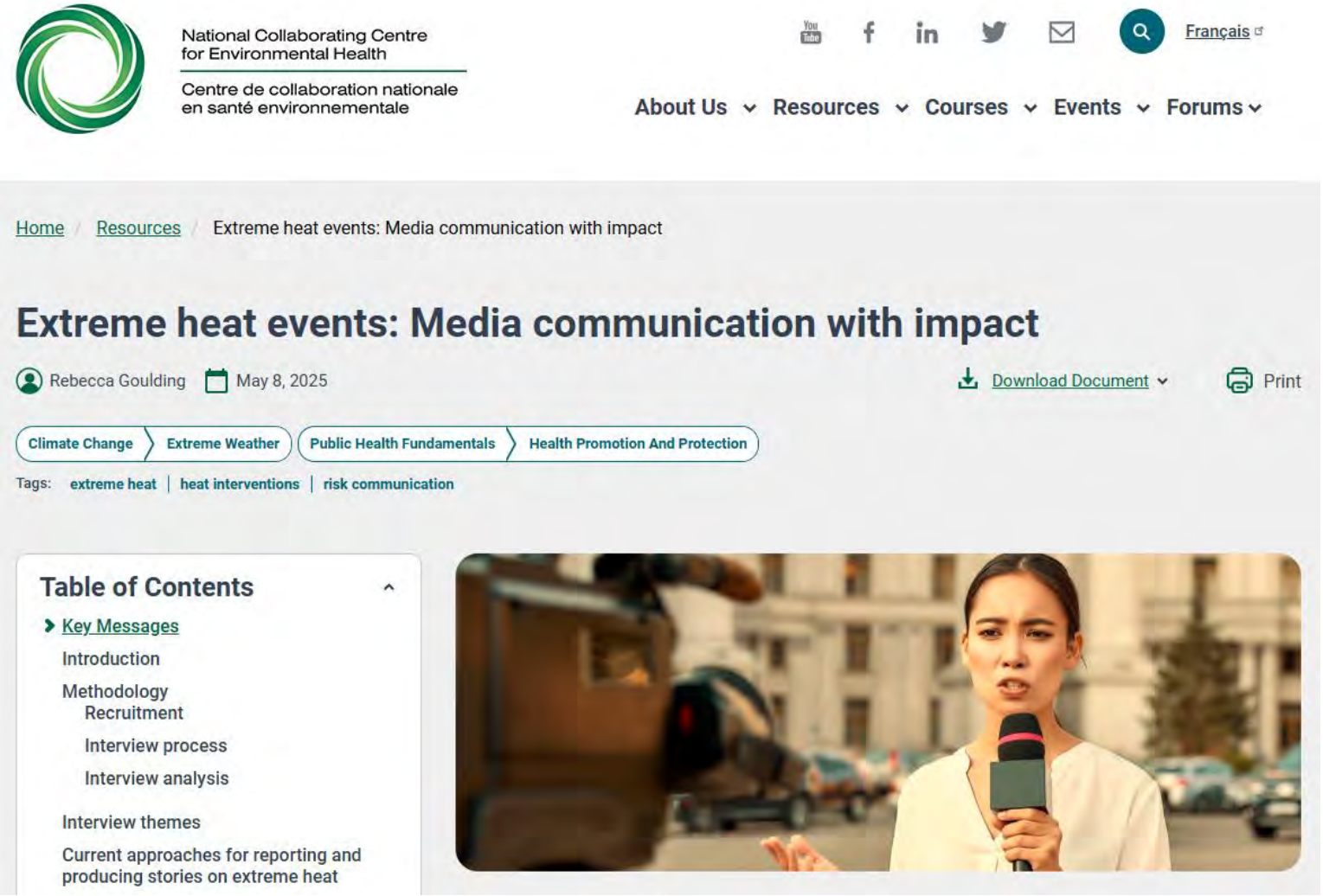
What might be a **barrier** for collaboration between public health and media professionals regarding extreme heat communication?

https://app.sli.do/event/fLLTzhhQ2ADDtLYfNQf36X

Add to the chat!

What might be **enablers** for collaboration between public health and media professionals regarding extreme heat communication?

There’s more in the report…



[Extreme heat events: Media communication with impact | National Collaborating Centre for Environmental Health | NCCEH - CCSNE]

Acknowledgements

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Thanks to Elizabeth Loftus and Barb Karlen (NCCEH), Joshua Grant (Communications Specialist, BCCDC; former journalist), Dr. Anne-Marie Nicol (Associate Professor, Simon Fraser University Health Sciences), Dr. Juliette O'Keeffe, and Dr. Sarah Henderson (NCCEH).

Health checks during extreme heat events

A guide for doing in-person or remote health checks

Extreme heat events can lead to dangerous indoor temperatures in homes without functioning air conditioning. Health checks are used to assess how people at high risk of heat-related illness are doing during extreme events. In-person health checks are best, but a remote health check is better than no health check.

This guide has five pages with important information for doing health checks during extreme heat events.

Rapid risk assessment checklist

To assess whether someone is at risk, check all the personal factors that apply on the following list. The more boxes checked, the higher the potential risk.

☐ Older adult (60 years+)	The body's ability to cool itself is impaired as people age.
☐ Mental illness or cognitive impairment	Conditions such as schizophrenia, depression, anxiety, and dementia can reduce awareness of heat-related risks.
☐ Chronic disease	Chronic diseases such as diabetes, heart disease, respiratory disease, and cancer can limit the body's ability to cool.
☐ Living alone or socially isolated	People who live alone or do not have strong social connections are at higher risk because they have fewer people looking out for them.
☐ Substance dependency or use	The ability to sense and respond to heat can be affected by use of drugs or alcohol, especially for those who are dependent.
☐ Impaired or decreased mobility	People with impaired or reduced mobility might be less able to take protective measures during extreme heat events.
☐ Medication use	Some prescription medications for common conditions can cause dehydration and affect the body's ability to cool itself.
☐ Poor physical fitness	People who are not engaged in regular physical activity are less able to keep cool in the heat.

June 2022

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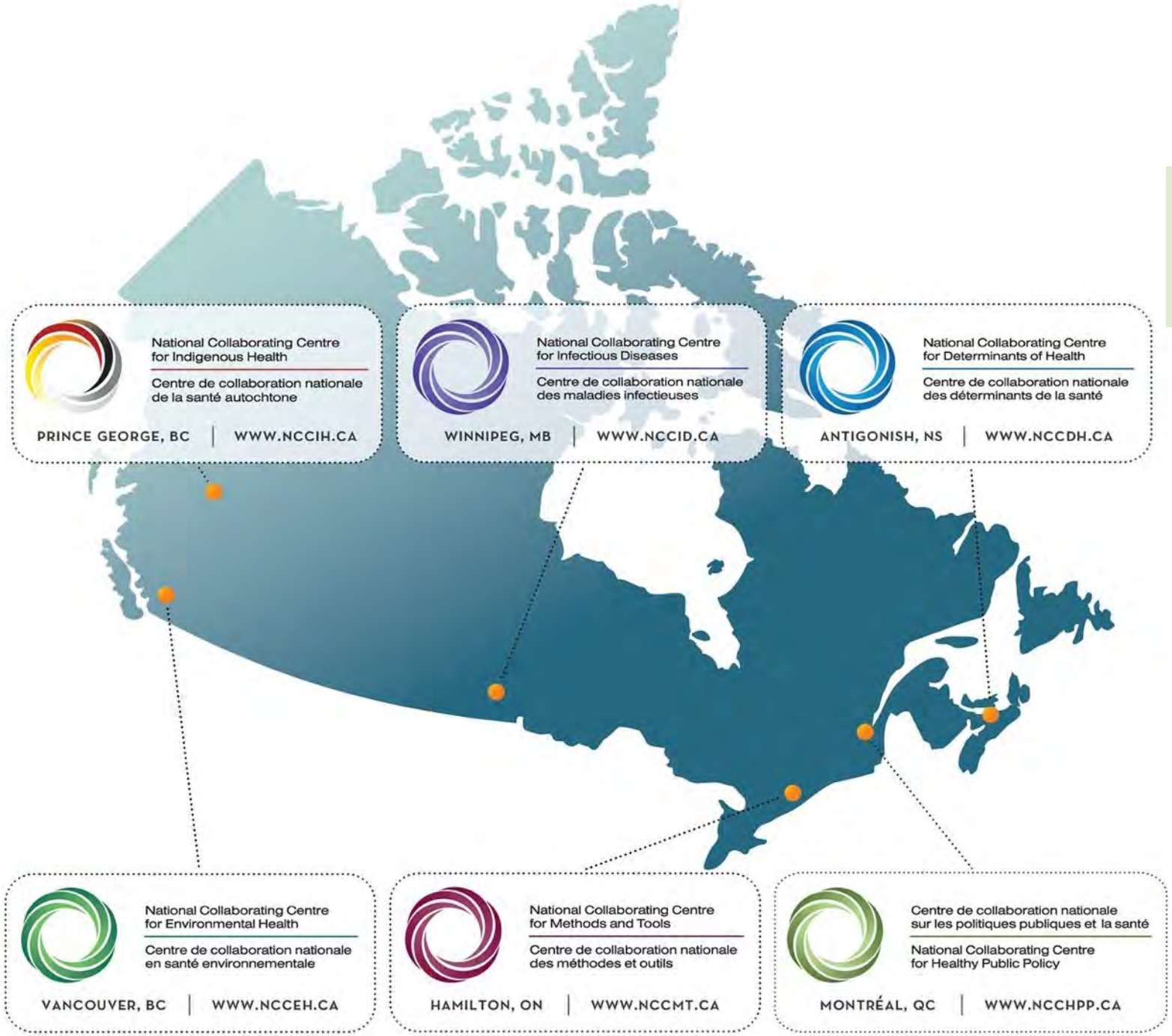
Resources in this presentation

- BC Coroner's Service; Extreme Heat Death Review Panel Report, June 2022
- GHHIN; Reporting on heat waves and the health impacts of heat
- CCN; Reporting guidance: 2024's extreme heat
- NCCEH; Storyline of a silent killer: Extreme heat and media communication, July 2024
- NCCEH; Extreme heat events: Communication with impact, May 2025
- FNHA; Be prepared for hot weather
- Prepared BC; Extreme heat guide – Simplified Chinese, May 2023
- Prepared BC; Extreme heat guide - English, May 2023

Resources in this presentation

- Tetzlaff EJ, Goulet N, Gorman M, Richardson GR, Enright PM, Meade RD, et al. Hot topic: A systematic review and content analysis of heat-related messages during the 2021 Heat Dome in Canada. J Public Health Manag Pract. 2024;30(2):295-305. Available from: https://doi.org/10.1097/PHH.0000000000001817.
- O'Neill S, Hayes S, Strauβ N, Doutreix M-N, Steentjes K, Ettinger J, et al. Visual portrayals of fun in the sun in European news outlets misrepresent heatwave risks. Geogr J. 2023;189(1):90-103. Available from: https://rgs-ibg.onlinelibrary.wiley.com/doi/abs/10.1111/geoj.12487.
- Tetzlaff EJ, Goulet N, Yapici N, Gorman M, Richardson GRA, Enright PM, et al. Beach day or deadly heatwave? Content analysis of media images from the 2021 heat dome in Canada. Clim Change. 2024;177(5):74. Available from: https://doi.org/10.1007/s10584-024-03713-6.



Evidence-based knowledge synthesis and translation

Identify knowledge gaps

Foster networks, build capacity for Canada's public health system

Imagery frames the context of the article

https://cheknews.ca/warmest-on-record-bc-heatwave-keeps-trend-of-hottest-year-ever-on-earth-1208851/

Earth could see more years of extreme heat, top weather experts warn - National | Globalnews.ca