

COMMUNICATING HEAT RISK

EXPERIENCES FROM C40'S COOL CITIES NETWORK

INTRODUCTION

As the climate crisis deepens, extreme heat events are becoming more intense and frequent around the world. This has brought heat to the forefront of the conversations around climate change adaptation, as city governments are increasingly concerned about the health of their residents during extreme heat periods. Effectively communicating heat risk - especially to the most heat-vulnerable communities - is therefore essential for limiting the impact of that climate risk.

This document is a summary of the conversations and materials shared by C40's Cool Cities Network working group of seven North American C40 cities: **Boston, Miami, New York City, Philadelphia, Phoenix, Toronto and Washington DC.** The aim of this working group was to convene technical climate adaptation staff and communications advisors from Cool Cities Network members in the North America region to discuss best practices for communication responses to intense heat events.

The discussions took place in May and June 2020 during the COVID-19 pandemic. Conversations between cities not only covered ways to generally communicate about heat risk, but also how COVID-19 and associated city interventions could impact a city's heatwave response initiatives and community outreach. As an output of this working group, C40 developed a "Home Cooling Tips" communications toolkit that all Network cities are free to use.

Why is it important to communicate about heat risk?

1. Heat risk is often underestimated by the general public. Heatwaves are among the most dangerous and deadliest of natural hazards, but rarely receive adequate attention because their health impacts and death tolls, as well as their impacts on other urban areas, such as infrastructure, energy, or crime, are not always immediately obvious.

2. Communicating about health risk during a heatwave and encouraging simple risk aversion actions (hydration, seeking shade etc.) through different communications channels can be very effective in reaching different heat-vulnerable groups. However, City governments also need to implement long-term urban cooling strategies through nature-based solutions, shading, built-material choices, etc. to lower temperatures city-wide.

1

RECOMMENDATIONS

- Use existing channels and local messengers: Build strong relationships with local community groups and leaders that can help spread the message.
- **Diversify communcation channels**, with a focus on reaching the most vulnerable: Not all modes of communication (e.g., social media) are reaching the most vulnerable (e.g., the elderly). So choose outreach channels appropriately.
- **Highlight environmental injustice:** Collect data and showcase how heat is impacting populations in urban areas differently. This helps make the case for cooling actions in high-risk areas.
- Connect heat events with climate change: Demonstrate how rising temperatures and more heatwaves in your city are connected to greenhouse gas emissions.
- Foster collaboration between communications professionals and technical heat/adaptation experts: Bring together both expertises to create the most effective communications strategies.
- Piggyback on existing public outreach programmes: Other departments and initiatives
 might already distribute municipal newsletters, run volunteer programmes or have telephone
 helplines established. Rather than setting up heat-specific outreach programmes, think of how
 efforts can be combined!

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City-led communications campaigns can be a powerful tool to inform vulnerable groups about heat risk and ways to stay cool. The groups most vulnerable to extreme heat are the elderly, children, outdoor workers, those with medical pre-conditions (e.g., heart or respiratory diseases), racial and ethnic minorities and lower-income communities. Reaching those different groups requires a multi-faceted outreach strategy.

Which communication channels are available for cities to best reach different groups?



SOCIAL MEDIA

Who is the audience? People who receive and share information digitally; generally younger audiences

Pros: Large numbers of impressions; cost-effective strategies available to increase followers

Cons: Content can sometimes get lost or forgotten; some people don't have smart mobile devices or computers; requires some moderation of comments and replies



RADIO

Who is the audience? All residents, particularly home-bound people; workers who listen to radio on the job

Pros: Generally cost-effective advertising; remains a good platform for alerts, particularly with emergencies

Cons: Difficult to convey messages in shorter amount of time



Who is the audience? All residents, particularly home-bound people

Pros: Reaches many residents; news programs run throughout the day to syndicate messages

Cons: Ads are expensive



WORKSHOPS

Who is the audience? Vulnerable communities; people who are engaged in community groups

Pros: Good for two-way communication; Community feels involved

Cons: Reach is reduced because of lower participation numbers



NEWSPAPERS

Who is the audience? All residents **Pros:** Trusted source of information

Cons: Many people are getting their news from

digital sources and other media like TV



FLYERS / POSTERS

Who is the audience? Active communities where people interact regularly and use local services

Pros: Designs can help grab attention; people can take them home

Cons: Hard to measure impact



CITY EXAMPLES - NORTH AMERICA

BOSTON

- The Boston Public Health Commission and Office of Emergency Management have robust heat-health educational materials (e.g., multilingual info flyers for various vulnerable populations), which the Environment Department helps distribute.
- The "Get Read, Be Safe, Stay Healthy" (RSH) programme helps the residents to prepare before, during, and after hazards by providing toolkits, and educational skilled based information. RSH provides the intersection of emergency management, public safety, public health, with the focus on climate. The programme has been effective with teaching the "Whole Community" in 11 languages, including Braille, and MP3.
- The Environment Department partnered with the 311 telefone line Constituent Service Center to provide representatives information about how to respond to heat risk and relief questions from residents.
- "Alert Boston" programme City sends heat emergency alerts (and info on cooling centres, etc.) to people via SMS or email.



FURTHER INFO

- City of Boston's "Keeping Cool in the Heat" webpage, features tips & facts, safety video, multilingual factsheets (available in English, Arabic, Chinese, Cape Verdean Kreyol, French, Haitian Creole, Portuguese, Russian, Somali, Spanish, Vietnamese) and info on places to stay cool
- "Get Read, Be Safe, Stay Healthy" emergency preparedness programme & individual online learning course
- Emergency Alert program sign-up
- Boston "Preparing For Climate Change" webpage & strategy

MIAMI



FURTHER INFO

- "Miami's Vulnerability to Extreme Heat" webpage
- "Miami Forever Climate Ready" webpage & strategy

- Webpage on "Miami's Vulnerability to Extreme Heat" provides overview of risk
- Communicating about heat has previously been strongly linked to electricity and power issues, as well as hurricanes.
- City often partners with traditional media, such as newspapers and TV, to talk about heat issues.
- All assisted living facilities (e.g., seniors centres) are required to have backup power, ACs can still function during power outages.
- The Communications Department has introduced a new resilience newsletter, sent out twice a month, that details climate and urban resilience programmes and initiatives occurring citywide.
- Outreach via foodbanks distributing climate hazards risk info (esp. for hurricanes) with food bags.

CITY EXAMPLES - NORTH AMERICA



FURTHER INFO

- The Cool Neighborhoods NYC Strategy A Comprehensive Approach to Keep Communities Safe in Extreme Heat
- <u>Hazards Mitigation Site</u>
- <u>Cool It! NYC</u> online map of cooling features available to the public during heat emergencies
- The NYC <u>Heat Vulnerability Index</u> understand the distribution of heat and health risks across NYC neighborhoods
- "Beat the Heat" webpage provides easy-to-navigate information about how New Yorkers can stay cool, safe, and informed during the summer heat season.

NEW YORK CITY

- The "Be-a-Buddy" initiative that is part of "Cool Neighborhoods NYC" aims to prepare communities for extreme heat events through climate health education, provide wellness checks for at-risk individuals, and enhance social cohesion as neighbors help and check on each other during heat waves.
- Through Cool It! NYC, the City increases the number of cooling features available (320 additional spray caps to fire hydrants) to the public during heat emergencies, particularly in neighborhoods that face dangers of high heat. An online map gives up-to-date information on the closest sprinklers and water fountains.
- The NYC Emergency Management Department's "2019 Hazard Mitigation Plan" webpage includes interactive tools to educate the public on the different climate hazards that pose a risk to the city and assist city agencies with hazard mitigation investments.
- The City has organized multiple heat-focused webinars for community emergency networks, civic associations, and faith-based organizations.

PHILADELPHIA

- Philadelphia's Department of Public Health & Office of Emergency Management are leading on messaging during heat health emergencies using social media, street posts, posters etc.
- Philadelphia Corporation for the Aging (PCA) has a heat-telephone line that any resident can call during a heat heath emergency to get health and safety tips and to talk to medical professionals to discuss conditions and illnesses made worse from the heat. The Heatline is promoted on different news channels.
- The community engagement project "Beat the Heat Hunting Park, A Community Heat Relief Plan" started in summer 2018 to address heat & equity issues. In close interaction with local residents through interviews and workshops, the City developed a Community Heat Resiliency Plan for a specific neighbourhood based on residents' needs.
- **Greenworks Review Magazine**: annual publication on Philadelphia's progress towards becoming a sustainable city for all. Heat-adaptation actions and messaging are included.



FURTHER INFO

- <u>Summary presentation slides</u> of Philadelphia's heat communications
- Example online/social media outreach of OEM during heatwave
- PCA's "Heatline"
- Greenworks Magazine 2019 (p. 26ff. for heatwave article)
- Community Heat Resiliency Plan "<u>Beat-the -Heat -- Hunting Park</u>"
- Beat-the-Heat --<u>Toolkit</u> to replicate in other neighbourhoods

CITY EXAMPLES - NORTH AMERICA

PHOENIX

- "Summer Heat Safety" programme includes digital and printed materials featuring information on outdoor physical activities, ACs, parks & shaded spaces and cooling centres. The flyers are added to a monthly print newsletter sent to every household that has a water&solid waste account. This campaign also includes Take A Hike, Do It Right, which provides hikers with information about heat safety and are posted at trailheads in parks and preserves.
- with large volunteer groups to increase awareness about public cooling refuges and hydration stations, especially among low-income transit users, homeless and transient populations, and other vulnerable groups. Volunteers hand out maps of the City's cooling refuges and bottles of water. Through the summer months, the map of all the citywide hydration and cooling stations are available at transit locations, libraries and other city locations. These sites are labeled with a Heat Relief Network decal.
- Phoenix Fire Department is leading on public messaging about heat health impacts.



FURTHER INFO

- Phoenix's <u>Summer Heat Safety</u> Program with heat info and resources
- <u>Video</u> & <u>article</u> about "We're Cool" outreach programme
- The <u>county-wide Heat Relief Network</u>, of which Phoenix locations compose the majority, has an interactive map where residents can find the location and type of cooling center nearest them

TORONTO



FURTHER INFO

- "Staying Healthy in Hot Weather" webpage with advice on beating the heat, locations of cooling centres, etc.
- Heat Relief Communications for <u>buildings</u>

- Toronto Public Health has various online resources available around heat risk and cooling centres.
- All apartment buildings are required by law to provide messaging about either a cool room in the building or the nearest publicly available cool space,
- The City also does specific outreach to vulnerable populations, such as people experiencing homelessness, on heat days. The City has a street outreach programme for heat, providing water bottles and directing people to cool locations or drop-in programmes that have AC.

CITY EXAMPLES - NORTH AMERICA



FURTHER INFO

- Online information on heat risk
- "Alert DC" application

WASHINGTON, DC

- During intense heat events, the City increases **communication about cooling centres** (online map). A telephone line and transportation assistance to cooling centers is available.
- "Alert DC" app allows residents to receive emergency alerts, notifications and updates directly from the District of Columbia's public safety officials.
- The City uses the heat island & vulnerability map to talk about disparities and how heat has different impacts on people. Together with the tree canopy map, the heat vulnerability index is helpful in communicating about heat, and making the case for more heat relief action.
- DC also does outreach with direct mail through adding info with utility bills (2-3 times per year).
- It has also been useful to not only talk about the health risk of heat, but also how it impacts infrastructure, energy or crime.



CITY EXAMPLES - NORTH AMERICA

EXAMPLES OF CITIES' OUTREACH MATERIALS



PHILADELPHIA





BOSTON





PHOFNIX





BEAT THE HEAT Information for People over 65









Stay cool. Spend time in air conditioned spaces.

Make sure a friend or neighbor knows to check on you. Seek medical care if you start to feel unwell.

DID YOU KNOW?

- A single hot day can lead to health problems, but multiple hot days in a row bring
 the most risk
- · Older people may not adjust as well as younger people to sudden changes in
- Chronic medical conditions and some medications can affect the body's ability to control its temperature or sweat properly. Talk to your doctor in advance and seek help early if you feel unwell.
- Mobility issues may be worsened by hot weather, which can make it more difficult to travel to cooling centers when it's hot. Please plan ahead.
- Those who live alone are at heightened risk. Consider asking a friend or neighbor to check on you.

RESOURCES

Stay cool. Find public cooling centers, public pools, parks, beaches, and Boston Public Libraries. Meals on Wheels & Home Health Aides can visit on hot days. You may be able to get a ride with MBTA The RIDE or Senior Shuttle. Call 3-1-1 to see if you qualify.

For more information on these resources, call 3-1-1 or visit boston.gov/heat



INTERNATIONAL CITY EXAMPLES

BUENOS AIRES - WORKSHOPS

The City's "Adaptation Against Heat Waves" programme is an awareness campaign targeted at elderly people to raise public awareness through workshops and mass communication on heat risks. Since 2017, the City has convened 3.806 people at workshops that offer information on climate change and heatwaves. Additionally, 202.155 telephone communications were made, 116.256 emails and 11.200 text messages were sent.



PARIS / ATHENS - HEAT APP

Paris and Athens have used the EXTREMA mobile app during heatwaves. The app evaluates the real-time personalised health risk of the user at their location, and if high, it alerts them and provides recommendations and routing instructions to the nearest cooling centres. An online dashboard provides information and tools to the



authorities to manage heat hazards: (1) next day alerts, (2) current hazard maps, and (3) an information management tool for the cooling centres.

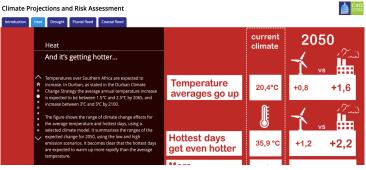
RIO DE JANEIRO - ENGAGING CHILDREN THROUGH GAMES

With Rio's "participa.rio" online platform, the City engages people on various urban sustainability topics with interactive information, graphics, expert videos, school curriculum materials etc. The platform also hosts various online games to bring the topics of sustainability and heat closer to children in a fun way.



ETHEKWINI (DURBAN) - ONLINE RISK ATLAS

eThekwini Municipality developed an interactive publicly accessible platform showing spatial representation of the city's climate risks - The Durban Story Map. It provides user friendly information on climate change adaptation projections for the city, including high level recommendations for different neighbourhoods on how to better adapt to heat.



CHALLENGES CITIES FACE

During the working group discussions, the cities also identified similar challenges they face when communicating about heat risk.



LACK OF HEAT RISK AWARENESS

Cities in generally warmer climates sometimes experience a degree of apathy from the general public towards heat risk, as hotter weather is being perceived as normal. This indifference to heat risk can be dangerous, especially for vulnerable populations. Heat campaigns therefore need to be explicit in communicating about what temperatures are no longer normal and when heat adaptation measures are needed.

--> For further reading, the University of Adelaide (Australia) has published the <u>report</u> "Communicating about heatwaves: Risk perception, message fatigue, and threat normalisation"



COMMUNICATING ABOUT OTHER HEAT IMPACTS

Traditionally heat communication is focused around the human health impacts, but other impacts are increasingly being studied and should be considered in heat risk campaigns. For example, highlighting how different types of urban infrastructure, such as streets, rails or energy grids (due to increased cooling demand), are affected by extreme temperatures and can have cascading impacts on other urban systems.

- --> For more info on how heat (and other climate hazards) impact different urban sectors, check out these C40 Adaptation-Integration Guides.
- --> For more info and studies on the relation between heat and crime rates, read more <u>here</u>.



CONSISTENT LANGUAGE OF HEAT ALERTS

When communicating about heat risk, it is important for a city to streamline the language and make it clear the difference between "extreme heat day," "heatwaves," "deadly heat day," "dangerous heat day," etc. Although those heat alert thresholds might be different in cities due to different climates, cities in the same national context should consider using similar terminology.

--> For more info on how to determine a heatwave activation threshold, see WHO/WMO's "Heatwaves and Health: Guidance on Warning-System Development" report (2015)



INTERNAL COORDINATION

To achive effective heatwave response management, different city departments (e.g. emergency response, fire brigade, environment/sustainability departments) need to be in close collaboration to avoid mixed messages and stremline public outreach.

COVID-19 AND HEAT COMMUNICATIONS

Cities recognised the need to scale up communications about heat risk to raise awareness of heightened vulnerabilities to hot weather during the COVID-19 pandemic. The compounded risk of heat and COVID-19 puts additional pressure on emergency response and healthcare systems, and cities are therefore updating their heat-health action plans and communications strategies. Please keep in mind that the main topics, concerns and suggested actions raised by cities below are still in progress and dependent on local circumstances.

REACHING THE MOST VULNERABLE

Challenge: How to reach home-bound individuals who are particularly vulnerable to heat as well as COVID-19?

- Build on COVID-19 community-based support networks (e.g., for food distribution) to check on elderly.
- Do as much outreach as possible via phone, newsletters, and virtual checkins
- Perform home visits only with full PPE.

ADJUSTING INDOOR & OUTDOOR COOLING CENTRES

Challenge: Networks of cooling centres might not be able to run at full capacity during the pandemic, due to closure of public buildings and social distancing.

- If possible, open a few emergency cooling centres with strict social distancing enforcement. Provide clear communication on who is allowed inside (full PPE for staff).
- Open up more outdoor cooling spaces, e.g. dedicated areas in parks, tents on sidewalks, parking lots, or yards of public buildings.

CHANGING OF MESSAGING

Challenge: How to avoid conflicting messaging? (e.g., "Stay inside due to COV-ID-19 vs. go outside due to heat")

- Adjust public messaging in close collaboration with public health agencies.
- Be explicit about social distancing when proposing heat relief outside.
- Focus messaging on indoor cooling opportunities (See toolkit on next pages.)

ENERGY ASSISTANCE PROGRAMMES

Challenge: How to ensure households can afford air conditioning and do not have their electricity shut-off?

- Expand energy assistance programmes (e.g., LIHEAP in the US) to assist lower-income households in meeting their immediate home energy needs.
- As some programmes are managed at national or state levels, partnering with neighbouring cities to access additional funding is effective.

CITY CASE STUDY

New York City developed a plan to address the converging threats of COVID-19 and extreme heat, installing 74,000 air conditioners for low-income seniors and at-risk New Yorkers and successfully petitioning the State's Public Service Commission to provide financial assistance with summer utility bills for low-income New Yorkers to lower the barrier to access life-saving cooling at a time of significant economic strain. The City's focus on providing affordable and equitable access to in-home cooling will keep New Yorkers safe from the heat this summer and for years to come. Additionally, heat messaging has been included in NYC Emergency Managements's biweekly COVID-19 call for community partners.

For more info, C40 collaborated with the *Global Heat Health Information Network* to develop an informational series to help local decision-makers be more informed about how to manage the health risks of hot weather during COVID-19. <u>See here</u>.

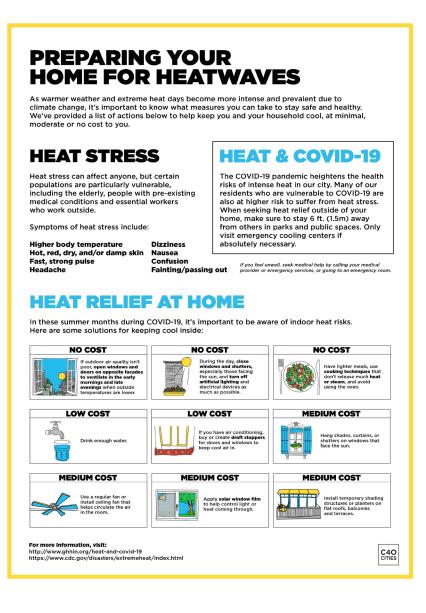
"HOME COOLING TIPS" MESSAGING TOOLKIT

Given the context of COVID-19 and cities' interest in communicating about how people can seek heat relief while staying indoors over the summer months, C40 developed this "Home Cooling Tips" messaging toolkit. The toolkit's aim is to make people aware of the compounded risks of heat and COVID-19 and promote some easy, low-tech and low-cost measures residents can take to stay cool in their homes.

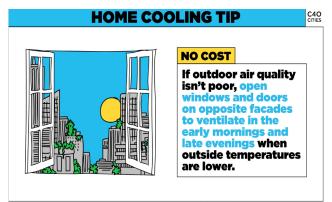
The Toolkit is made of a heat/COVID-19 fact sheet, media talking points, as well as 9 indoor cooling graphics (to be used for social media or printing). The resources are available in English and Spanish. All these materials are free to use for C40 cities and can be cobranded. The resources are available on C40's Knowledge Hub and please reach out to C40 (Regina Vetter, rvetter@c40.org) if your city has questions about using the materials.

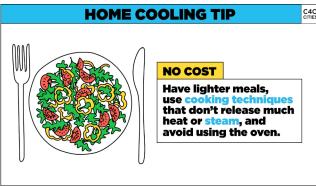
FACTSHEET

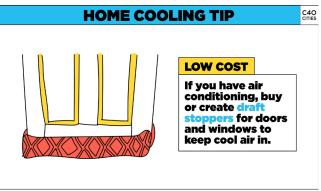


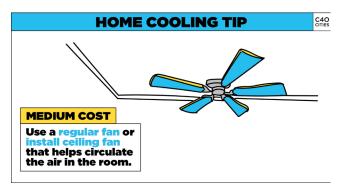


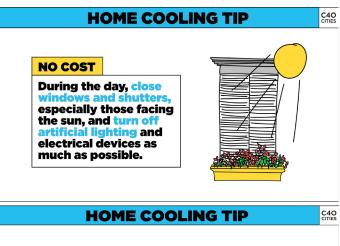
HOME COOLING TIPS - GRAPHICS

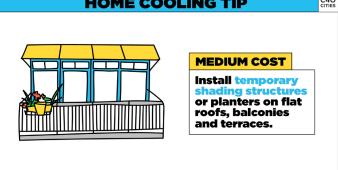


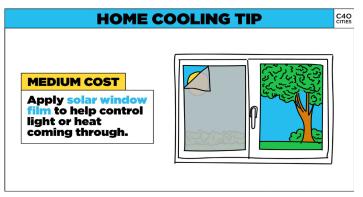


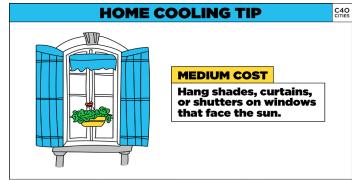












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City contributions by Zoe Davis & Kathleen Hart (**Boston**); Alissa Farina (**Miami**); Phil Ortiz & Sophia Rini (**New York City**); Cheyenne Flores, Christine Knapp & Ciara Williams (**Philadelphia**); Willa Altman-Kaoug, Mari Bourbon, & Michael Hammett (**Phoenix**); Amy Buitenhuis & Kimberley Keitner (**Toronto**); and Melissa Deas & Ceclie Green (**Washington DC**).