

# Public Health Response to Extreme Heat Events

**Stacey Kokaram**

*Director Office of Public Health Preparedness  
Boston Public Health Commission*

# Public Health Response to Climate Impacts

Stacey Kokaram, Director

Office of Public Health Preparedness

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OFFICE OF  
PUBLIC HEALTH  
PREPAREDNESS

# About BPHC's OPHP

## Our Vision:

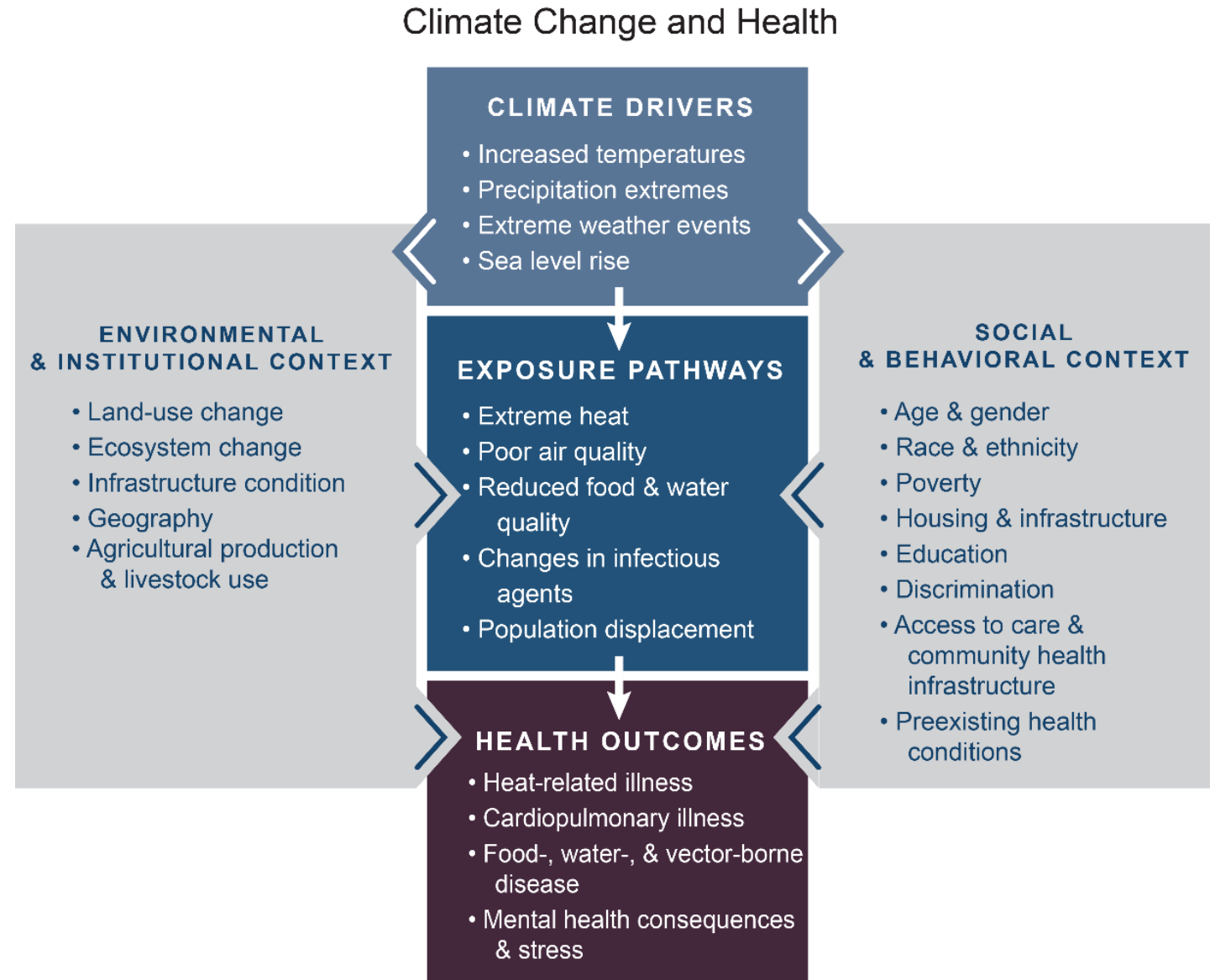
A resilient Boston through healthy, informed, and connected communities that are supported every day and during emergencies by strong, integrated public health and healthcare systems.

- Community fares better after an emergency
- Equitable access to health and human services during & after emergencies

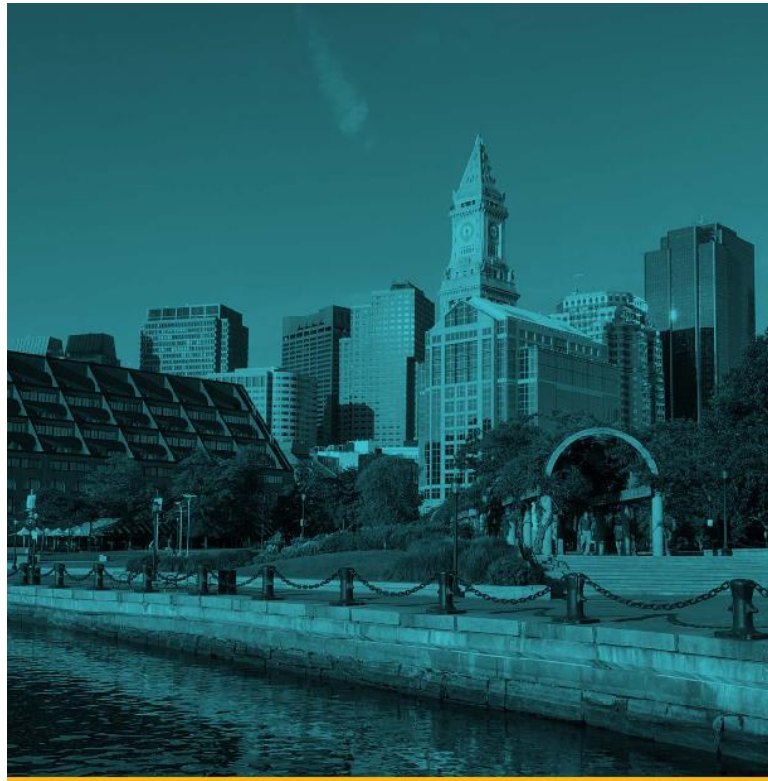


# Climate Change and Health

The Impacts of Climate Change on Human Health in the United States: A Scientific Assessment (2016). U.S. Global Change Research Program.



# Boston Guiding Documents



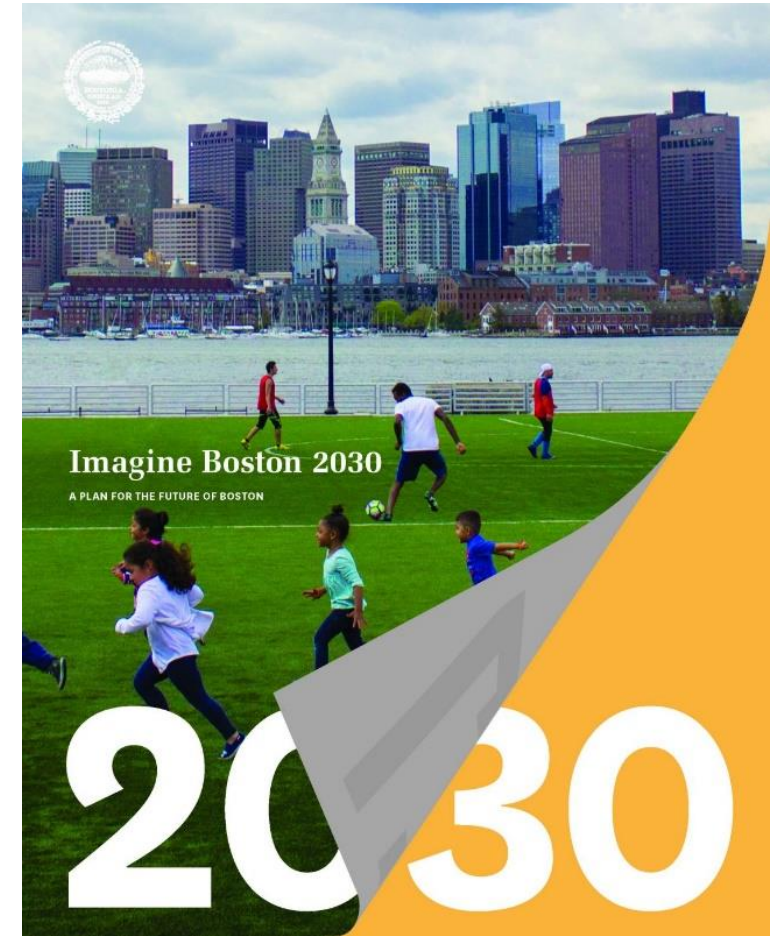
## CLIMATE **READY** BOSTON EXECUTIVE SUMMARY

MAYOR MARTIN J. WALSH     DECEMBER 2016



## RESILIENT BOSTON

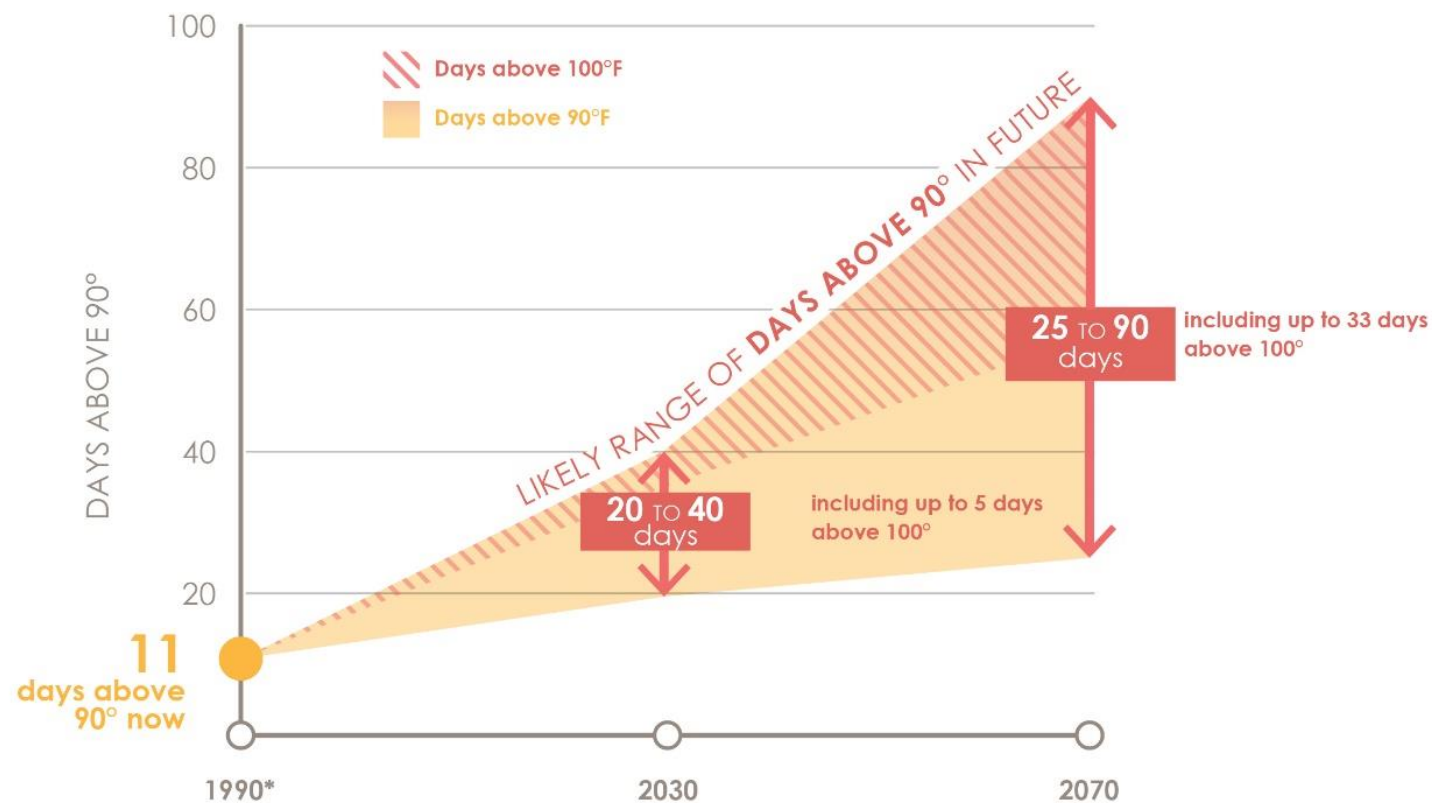
AN EQUITABLE AND CONNECTED CITY





# Days Above 90 Degrees F (32 C)

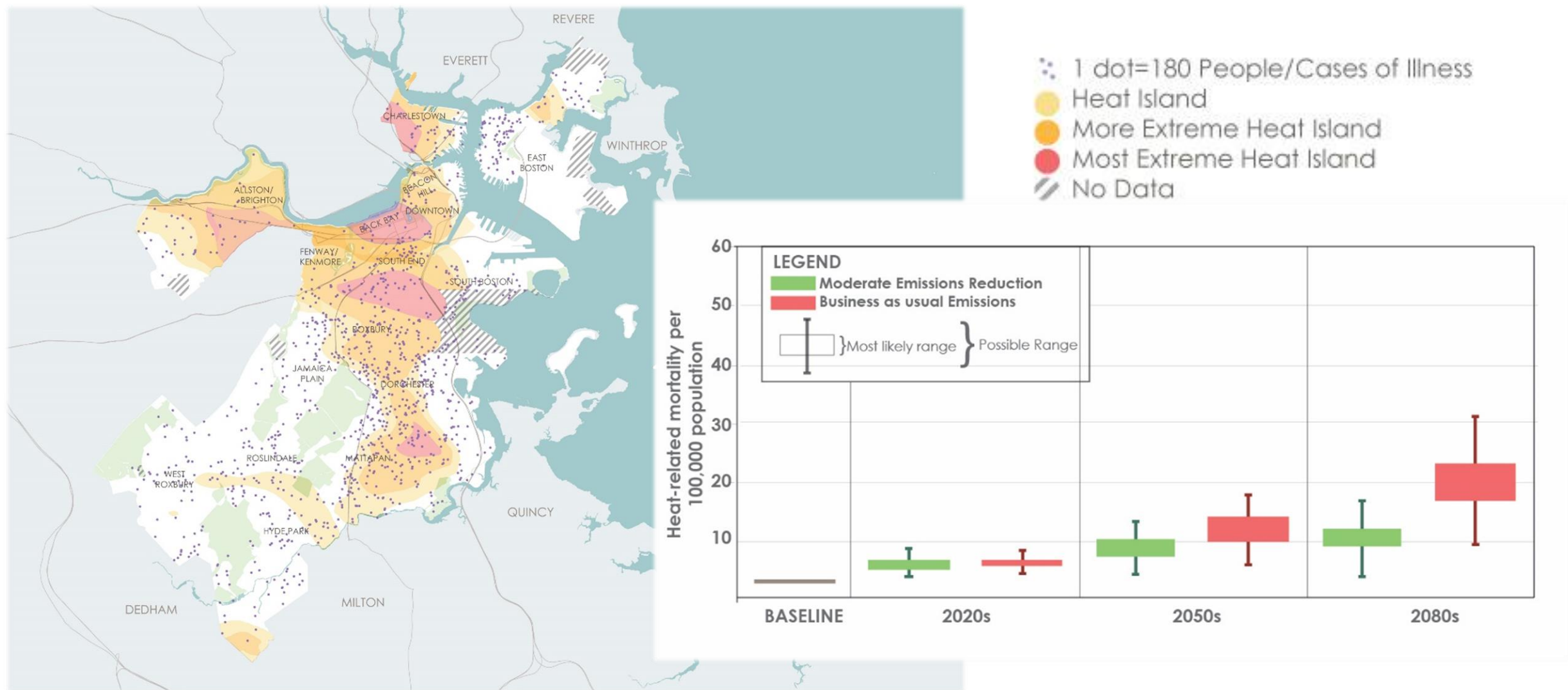
## THE NUMBER OF VERY HOT DAYS WILL INCREASE



\* Baseline represents historical average from 1971-2000  
Upper values from high emissions scenario. Lower values from low emissions scenario.

Data source: Rossi et al. 2015

# Urban Heat Islands



# Cold Weather: Winter 2017-18

The screenshot shows a web browser window displaying a news article from Boston Magazine. The URL is <https://www.bostonmagazine.com/news/2018/01/02/boston-cold-record-2018-1918/>. The page features a navigation bar with categories like NEWS, RESTAURANTS, WELLNESS, LIFE & STYLE, HOME & PROPERTY, THINGS TO DO, TRAVEL, BEST OF BOSTON, and MAGAZINE. The main headline is "Boston's Epic Cold Snap Ties a Century-Old Record" by Spencer Buell, dated 1/2/2018. A photograph shows a person walking through a snowy street. A sidebar on the right lists trending topics and sponsored content. At the bottom, a Windows taskbar is visible with the date 5/8/2018 and time 4:26 PM.

**NEWS**

## Boston's Epic Cold Snap Ties a Century-Old Record

It hasn't been this cold for this long since 1918.

by **SPENCER BUELL** • 1/2/2018, 11:22 a.m.

photo via AP/Bill Sikas

The extreme, bone-chilling cold that has swept the region over the past week is one for the history books, as it ties a record set in 1918 for the

**TRENDING**

- 1 Love, Power, and the Downfall of Stan Rosenberg
- 2 What Happens When You Kill a Bicyclist?
- 3 The 100 Most Influential People in Boston
- 4 An East Boston Woman's Car Was Stolen while Her Dog Was in the Backseat
- 5 The Birds and the Bees... and Porn

**SPONSORED CONTENT**

Cataract Surgery Patients Share Their Stories: "This Was a Wake-Up Call for Me"

**Boston's largest radio newsroom.**  
Covering Scituate to sanctions.  
Listen now > **90.9 wbur** **npr**

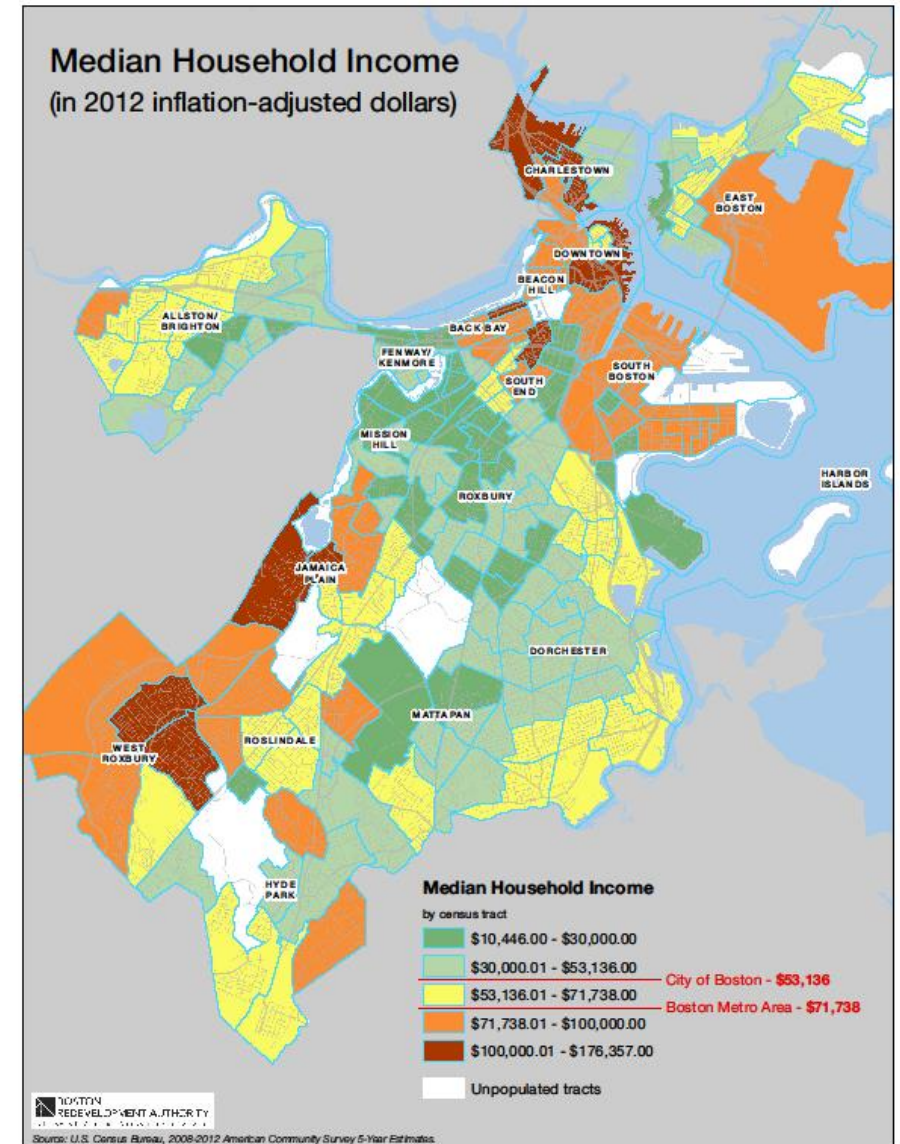
**Boston's largest radio newsroom.**  
Covering the Red Line to rising seas.  
Listen now > **90.9 wbur** **npr**

- Impact on:
  - Homeless Population
  - Public Safety
  - Hospitals
  - Utilities



# Social Determinants of Health

- Though the experience of climate change is often shared among an entire population, **not everyone is equally at risk of having a related poor health outcome.** Age, economic resources, location, and other factors all contribute to differential impact that climate change may have on health (Health of Boston Report)
- Nothing about someone's race, national origin, age, etc., makes them inherently vulnerable: we see acknowledging **vulnerability as an assessment of the system's deficiencies**, rather than a judgment of Boston residents. (Resilient Boston)



## COMMUNITIES OF COLOR

Some communities of color living in risk-prone areas face cumulative exposure to multiple pollutants.

Adaptation plans that consider these communities and improve access to healthcare help address social inequities.

## OLDER ADULTS

Older adults are vulnerable to extreme events that cause power outages or require evacuation.

Checking on elderly neighbors and proper emergency communication can save lives.

## CHILDREN

Children have higher risk of heat stroke and illness than adults.

Adults can lessen risk by monitoring exertion and hydration.

## LOW INCOME COMMUNITIES

Low income families are at risk of physical and mental illnesses during flooding and in crowded shelter conditions.

Comprehensive disaster management can improve resiliency for people with limited resources.

# Boston by the Numbers

## Boston Public Schools

- 56,000 Students

## Boston Housing Authority

- 60,000 residents
- Low Income, Elderly

## Boston Public Health Commission

- BPHC Homeless Shelters = 707 Beds
- System = 1,571



# Boston by the Numbers

## Disabilities Commission

- 84,000 Disability Classification

## Elderly Commission

- 54% of Elderly = Income Insecure
- 38% of Elderly Live Alone

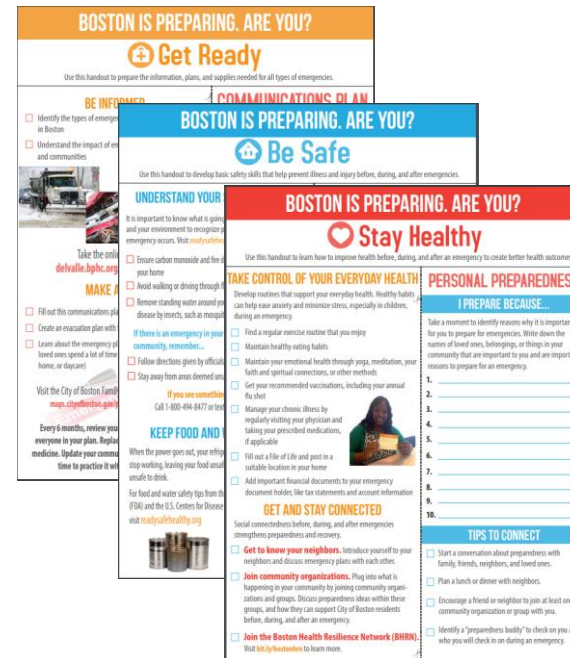
## Mayor's Office of Immigrant Assistance

- ~ 180,000 Foreign Born Residents (27%)
- ~ 108,000 Limited English (17%)



# Community Preparedness

- Started in 2013
- Supported by PHEP funding
- Focused on promoting people and health
- Built on lessons learned from previous disasters



[readysafehealthy.org](http://readysafehealthy.org)

## COMMUNITY PREPAREDNESS BASICS



### BOSTON IS PREPARING...ARE YOU?

This course provides best practices, tips, and resources for community preparedness basics. Engage in interactive preparedness activities and learn about City of Boston programs that will help you and your loved ones to get ready, be safe, and stay healthy before, during, and after an emergency.

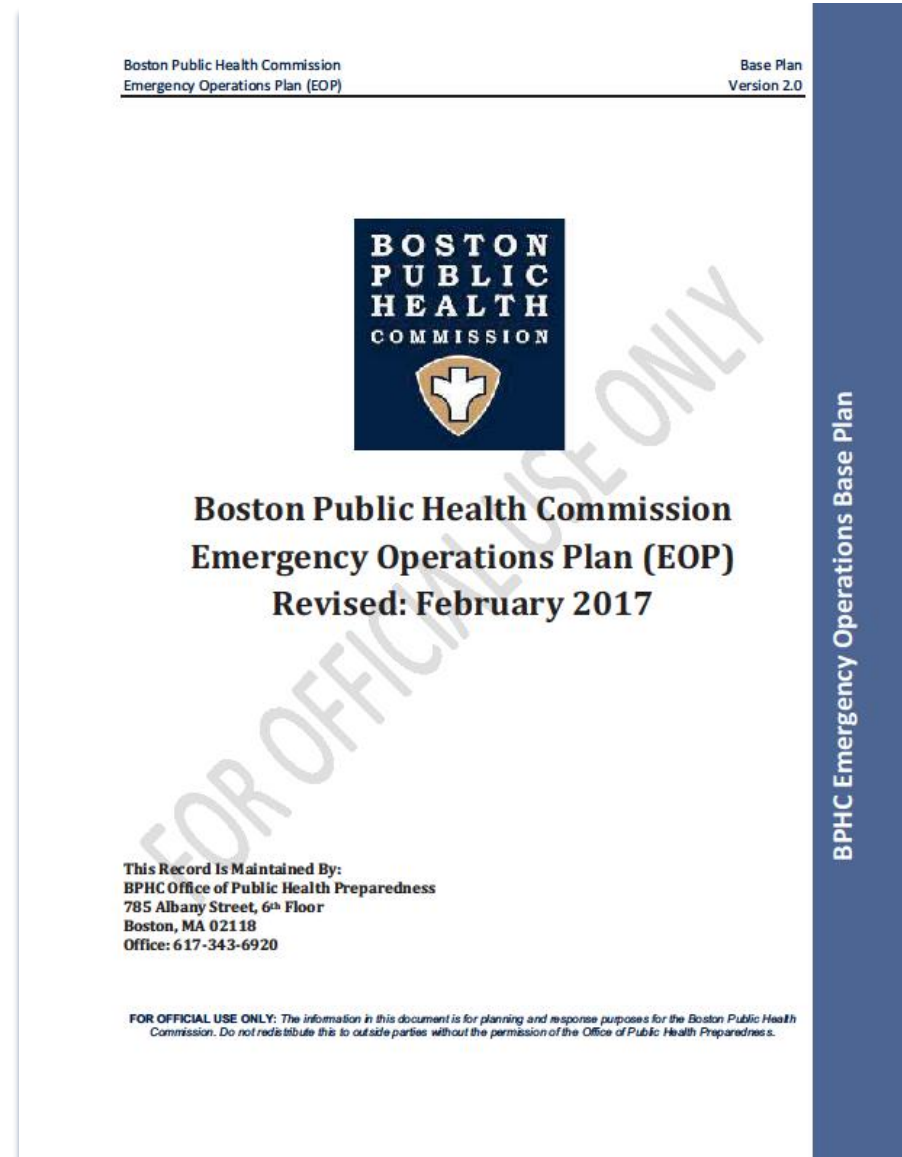
[Take the Course >>](#)



[delvalle.bphc.org](http://delvalle.bphc.org)

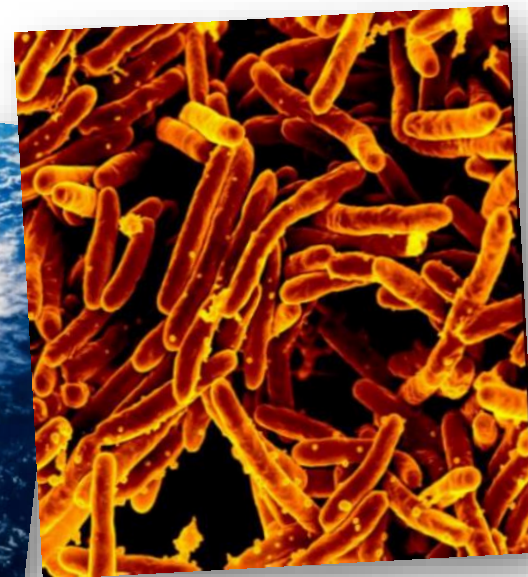
# Public Health Planning

- Extreme Temperatures Plan will complement BPHC Emergency Operations Plan
  - Health & Medical response plan for City of Boston (ESF-8)
- Will help inform and support OEM Extreme Temperatures Annex
- Plan will focus on public health and human health impacts of extreme temperatures citywide plan
- Materials providing consistency and resource access to be developed



# Medical Intelligence Center

The MIC is activated to support the public health and healthcare response to and recovery from emergencies in the City of Boston.



# Contact Info

Stacey Kokaram, Director  
Office of Public Health  
Preparedness

[skokaram@bphc.org](mailto:skokaram@bphc.org)

617-343-1165