

# Urban Heat + Health Responses

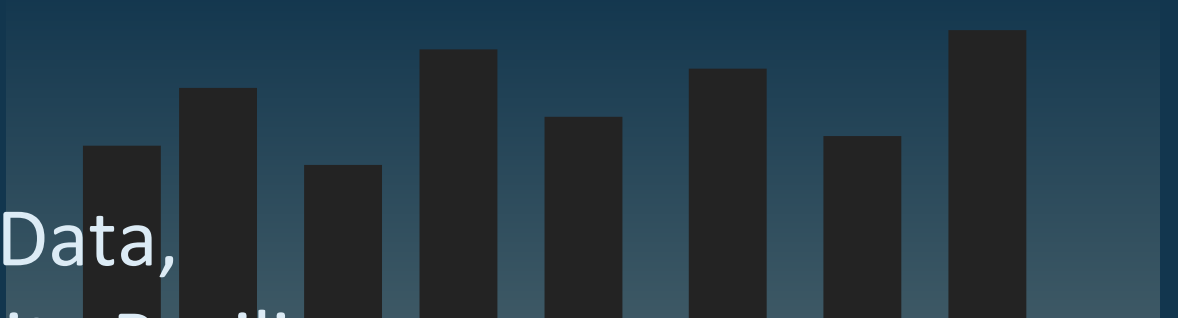
Managing Urban Heat Through Data,  
Policy Innovation, and Community Resilience

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Key takeaway 1

**“Urban heat reveals the invisible architecture of  
inequity.”**

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Heat Is Not Just About Temperature

# 1

## Heat Is Not Just About Temperature

- Extreme heat is one of the deadliest climate hazards
- It is a public health and equity challenge
- Heat impacts are shaped by race, income, age, and housing
- ["Cooked": Survival by Zip Code](#) highlighted systemic inequities
  - 1995, Chicago: Heat index up to 126 degrees
  - 739 deaths in one week

## Key takeaway 2

**“The heat crisis is landing on top of existing inequities.”**

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The Geography of Heat Mirrors the Geography of Inequity

## The Geography of Heat Mirrors the Geography of Inequity

- Historically disinvested neighborhoods are often hotter
  - Not the only ones, though
- Heat overlaps with health and economic vulnerability
- Historic planning decisions shape modern heat risk
  - Redlining; canopy disparities;
- Hottest neighborhoods are often neighborhoods that received fewer historic investments

Key takeaway 3

**“Charlotte is hot everywhere, but not equally hot.”**

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Charlotte: Mapping Heat at the Neighborhood Scale

## Charlotte: Mapping Heat at the Neighborhood Scale

- Community-led heat mapping revealed major temperature differences
  - [Cities for Smart Surfaces Coalition](#); 10 Cities adopting smart surfaces
  - Detailed satellite imagery, analysis and mapping of opportunities
  - Localized data supports targeted interventions
- Charlotte's [SEAP+ dashboard](#) visualizes vulnerability & identifies strategies: tree canopy; smart surfaces; data driven

Key takeaway 4

**“Data becomes transformational only when cities operationalize it.”**

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Cities Are Moving From Heat Mapping to Heat Governance

## Cities Are Moving From Heat Mapping to Heat Governance

- Tampa, FL developed [Heat Resilience Playbook](#)
  - 18 actionable steps to increase access to spaces of refuge, enhance and protect the tree canopy, and integrate heat resilience components in projects
- Boynton Beach, FL is integrating heat resilience into planning
  - 100k grant from [Climate Smart Communities Initiative](#)
- Cities are treating heat as a public safety issue
- Infrastructure and public health strategies are converging

Key takeaway 5

**“Extreme heat does not recognize municipal boundaries.”**

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Regional Collaboration Is Becoming Essential

## Regional Collaboration Is Becoming Essential

- Heat impacts cross municipal boundaries
- Coordination is needed across sectors and agencies
- Regional preparedness is increasingly critical
- Orange County, NC communities created a regional [Heat Action Plan](#)

Key takeaway 6

**“Urban surfaces are active determinants of health and resilience.”**

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Smart Surfaces, Policy Innovation, and Urban Heat Intelligence

## Smart Surfaces, Policy Innovation, and Urban Heat Intelligence

- Smart surfaces include cool roofs, trees, and reflective pavements
- Satellite data is transforming heat intelligence
- [Duke University's Heat Policy Innovation Hub](#) connects science to policy
  - Hub brings together scientists and communities to develop and deploy innovative policy solutions that reduce the impacts of extreme heat on human health and well-being.
- Cities now have tools to redesign for resilience

Key takeaway 7

**“The next generation of resilience will be built  
partnership by partnership.”**

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Designing Cooler, Healthier, More Connected Communities

## Designing Cooler, Healthier, More Connected Communities

- Heat resilience creates public health and energy benefits
- Neighborhood-centered investments improve equity
- Cross-sector partnerships are essential
- The future of resilience will be built neighborhood by neighborhood

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