



# Resilience and Climate Change: A Community Perspective

The Role of the Public Health Nurse

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# 4<sup>th</sup> NACCHO National Climate Assessment Tenets:

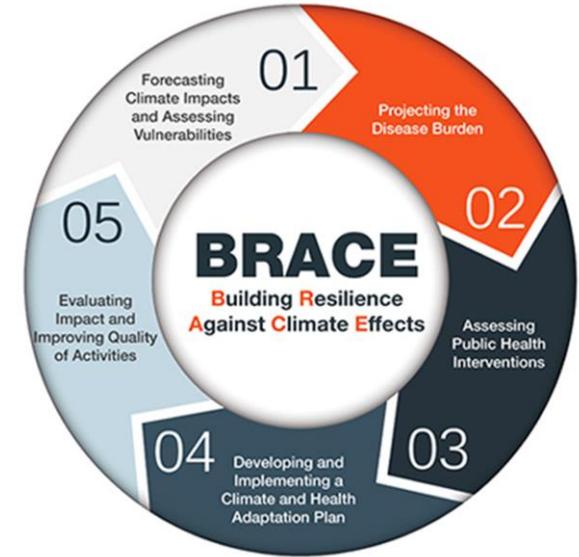
- ▶ Climate change affects the health of all Americans.
- ▶ Exposure and resilience vary across populations and communities.
- ▶ Adaptation reduces risk and improves health.
- ▶ Reducing greenhouse gas emissions results in health and economic benefits.

<http://essentialelements.naccho.org/archives/12740>



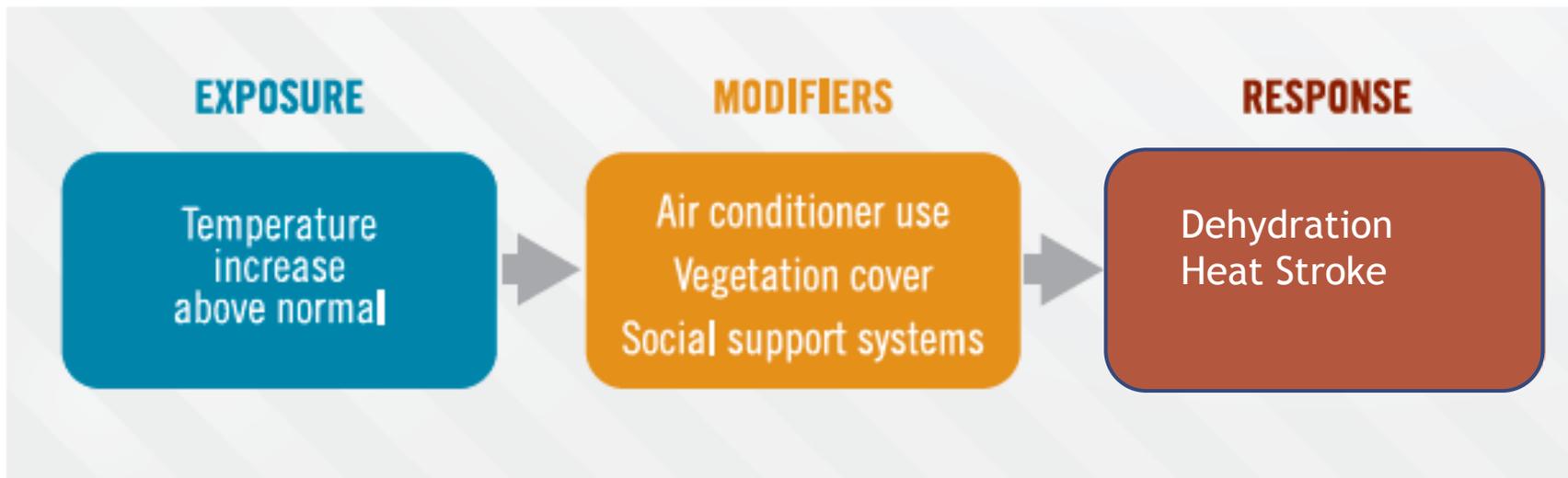
# 1) Determine the scope of the climate vulnerability assessment

Identify potential areas of climate change in your community and the associated health risks, and the associated health risks and modifiers



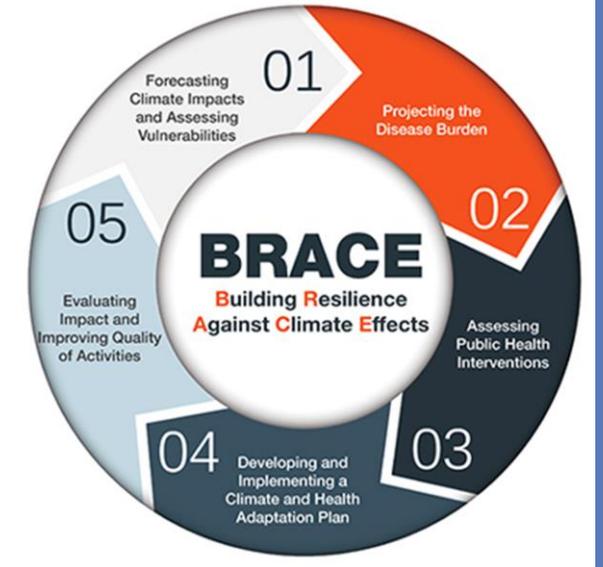
# Case Studies: Heat Related Illness

## Causal Pathway



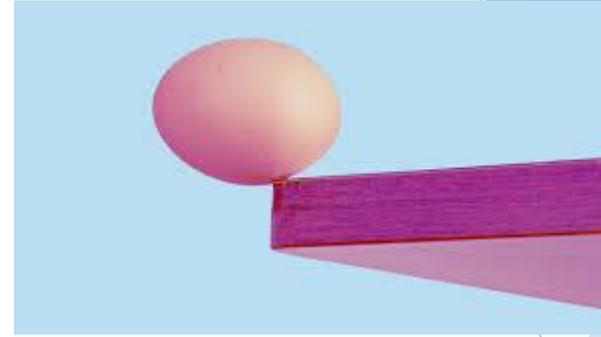
# BRACE

2. For these health outcomes, identify the known risk factors (e.g., socioeconomic factors, environmental factors, infrastructure, pre-existing health conditions). Upstream and downstream



# Vulnerability

## In you community



- ▶ Cultural
- ▶ Commercial
- ▶ Social Determinants of Health (SDH)
- ▶ Populations
  - ▶ Children
  - ▶ Elderly
  - ▶ Chronically Ill
  - ▶ Immigrants

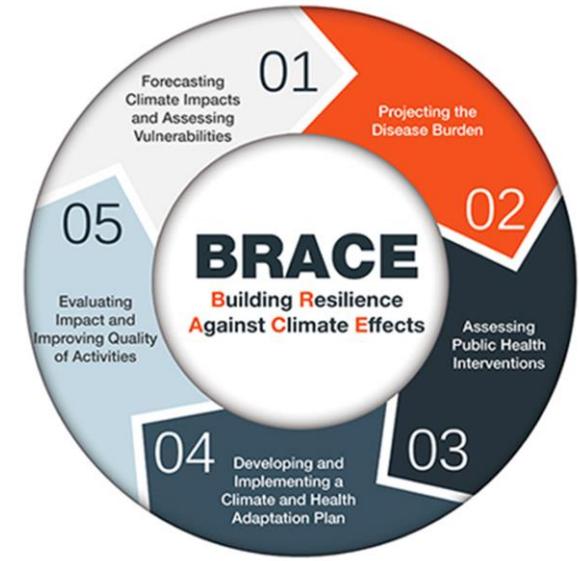
# Elders and Special Needs

## ▶ Preventative

- ▶ Community Engagement-all ages
- ▶ Social Support Systems
- ▶  engagement and  social support lead to increased confidence in community
- ▶ Developing working relationship with COA, Fire Dept. LEPC
  - ▶ Educational programs
  - ▶ Collaboration

# BRACE

3) Acquire information on health outcomes and associated risk factors at the **smallest possible administrative unit** (e.g., census block group, census tract, county) in accordance with data privacy regulations and availability.



# Social Vulnerability Index



Agency for Toxic Substances & Disease Registry

A-Z Index [A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#) [N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#) <#>

## The Social Vulnerability Index (SVI)

### What is the SVI?

Social vulnerability refers to the resilience of communities when confronted by external stresses on human health, stresses such as natural or human-caused disasters, or disease outbreaks. Reducing social vulnerability can decrease both human suffering and economic loss. ATSDR's Social Vulnerability Index uses U.S. census variables at tract level to help local officials identify communities that may need support in preparing for hazards, or recovering from disaster.

Replay

SVI Fact Sheet

Data and Tools

Publications

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**CDC 24/7**

Saving Lives.  
Protecting People.™

LEARN MORE ABOUT HOW  
CDC WORKS FOR YOU.

### SVI Mapping

Check the social vulnerability of your community

Zip code: \*

### SVI Topics

**Fact Sheet**

Learn about Social Vulnerability, the SVI, and its uses.

**Interactive Map**

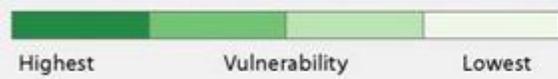
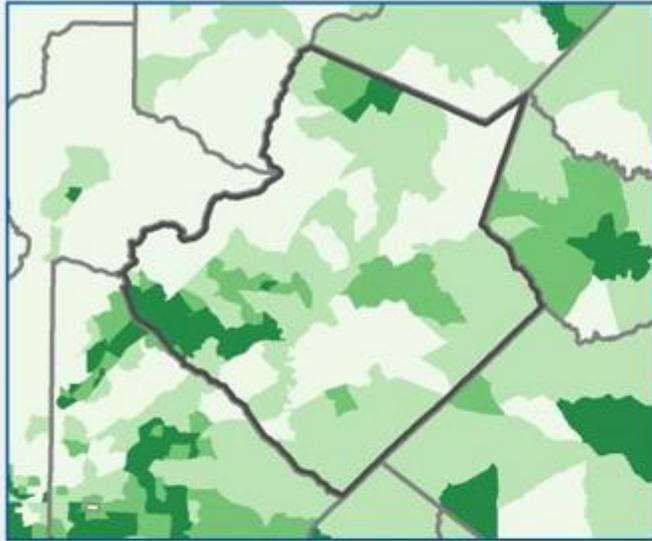
Click through to select a theme, location, layers (hospitals, etc.), and tract info. Export or print your customized map.

### Contact Us:

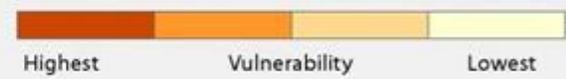
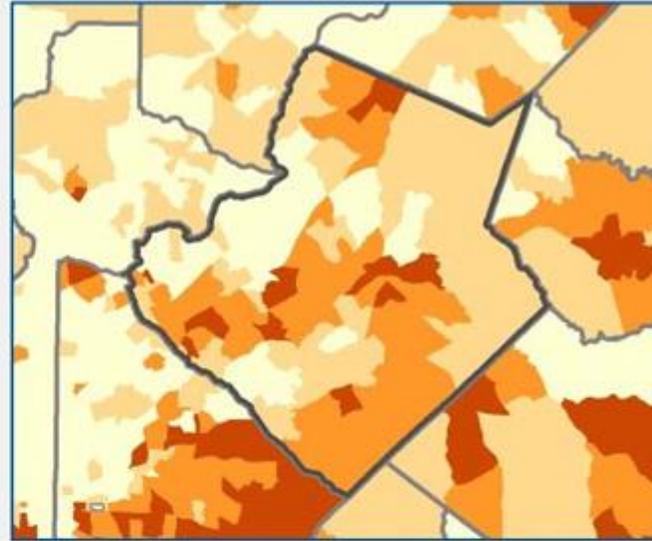
Agency for Toxic Substances and Disease Registry  
4770 Buford Hwy NI

<https://svi.cdc.gov/>

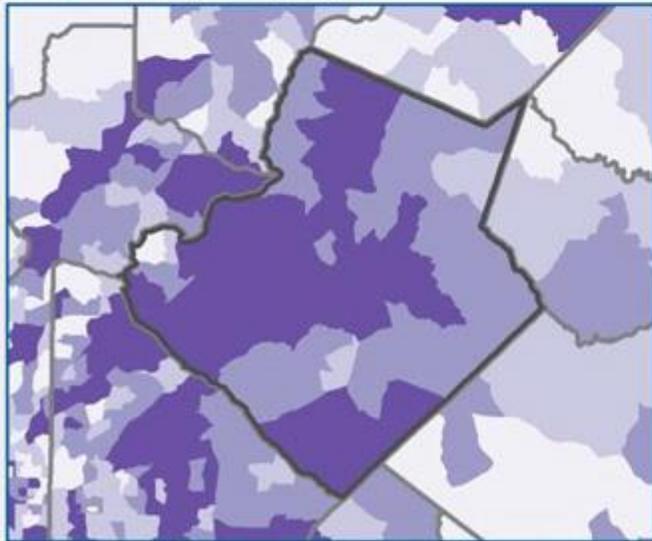
**Socioeconomic Status**



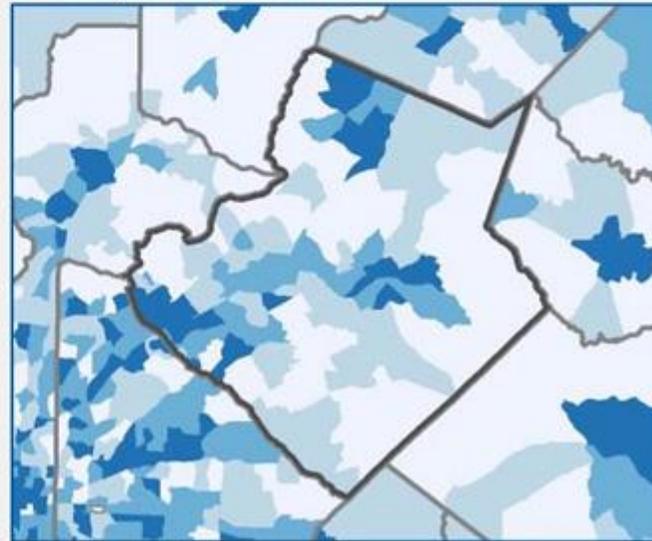
**Household Composition**



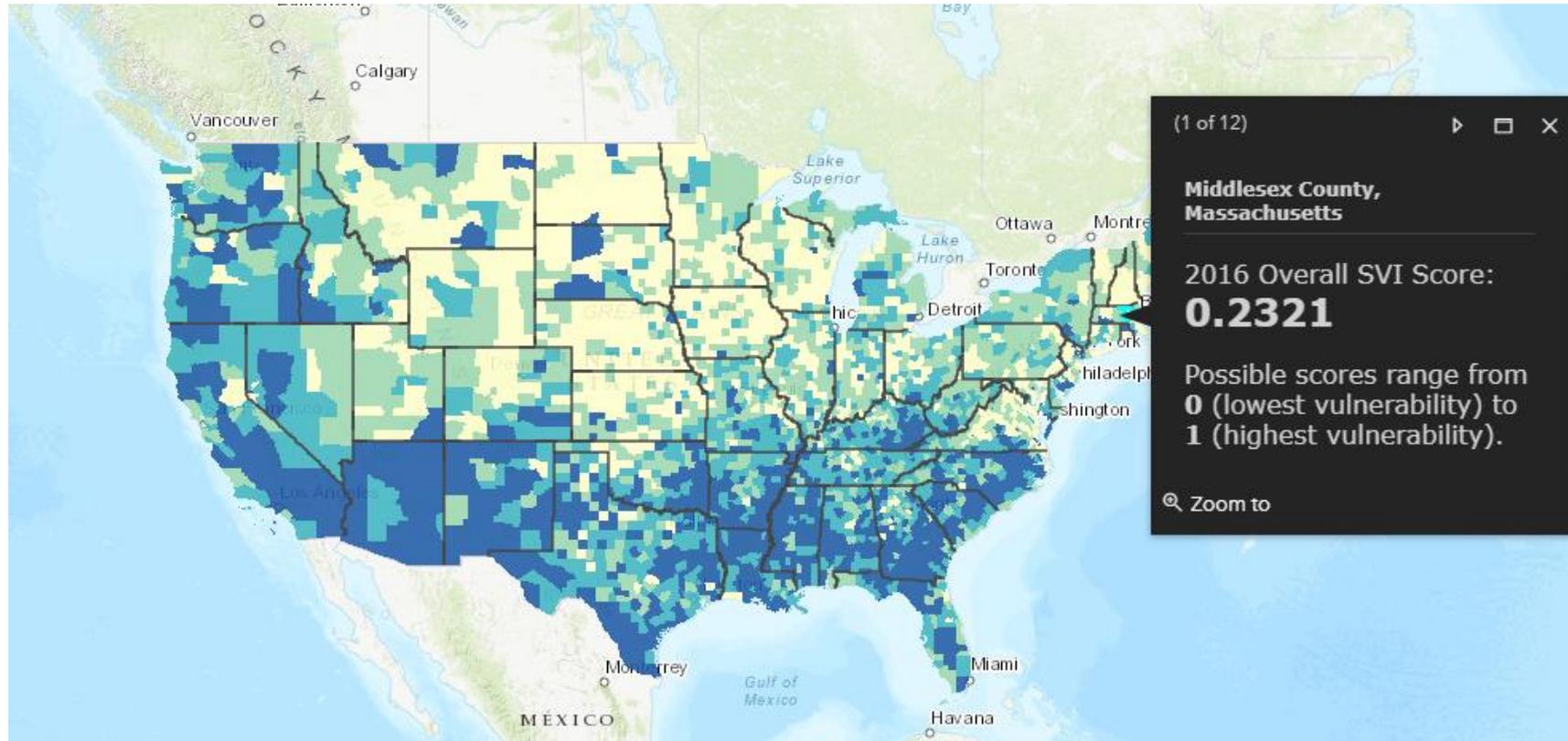
**Race/Ethnicity/Language**



**Housing/Transportation**



# Social Vulnerability Score by county/zip code



# BRACE

- ▶ 4) Assess adaptive capacity in terms of the system's (e.g., communities, institutions, public services) ability to **reduce hazardous exposure and cope with the health consequences** resulting from the exposure.

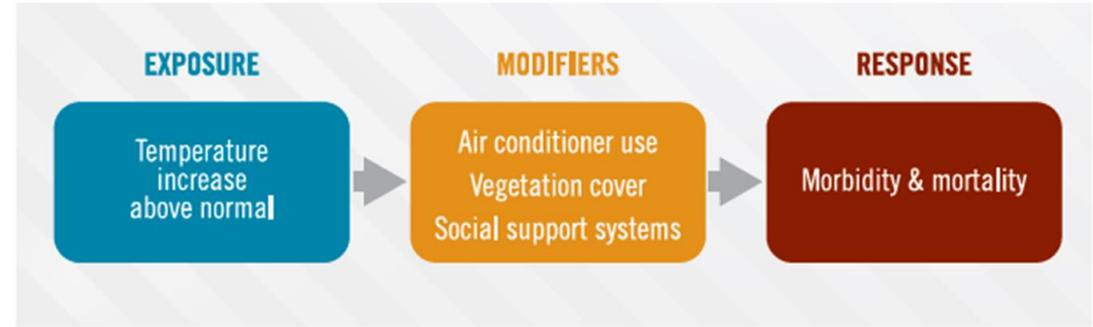


# Resilience

## Community Resilience

- ▶ (1) the ability of a community to withstand adverse exposures and the range of associated impacts; and (2) physiological (e.g., co-morbidities or disabilities) and socioeconomic (e.g., poverty) factors that increase the susceptibility of individuals to the exposure.

### Causal Pathway



# Resilience

- ▶ Community Support
  - ▶ Collaboration
  - ▶ Disaster Planning
  - ▶ Communication
  - ▶ Education

## General Communication Recommendations:

1. Find areas of agreement
2. Acknowledge ambiguity
3. Make it real; focus on positives
4. Emphasize solutions
5. Focus on personal benefits
6. End with your “ask”.



# Drought

- ▶ Stow has no public water supply-all private wells
- ▶ Focus on maintaining green spaces, low moisture plantings
- ▶ Implementation of water saving methods: rain barrels, low flow toilets in new construction
- ▶ Use of emergency plans from other departments
- ▶ Lessons learned!



# Education:

- ▶ Focus on:
  - ▶ Most vulnerable
  - ▶ Issues in your area
  - ▶ Anticipatory Guidance: Dirty dozen, PBA's in children dishes
  - ▶ Support bills that decrease carbon footprint: plastic bags, bottles
  - ▶ All politics is local!

# Educate Yourself

## ANHE: Association of Nurses for Healthy Environment



<https://envirn.org/>

# References

ANHE (Accessed at CDC, (2018). CDC's Building Resilience Against Climate Effects (BRACE) Framework. Accessed 3/26/18 at <https://www.cdc.gov/climateandhealth/BRACE.htm>

McLain, G. (2018). Global Climate Change in Your Community: Take Action Now Accessed 3/26/18 at <http://essentialelements.naccho.org/archives/12740>

Hess, J., Saha, S., Schramm, P. , Conlon, K., Uejio, C. & Luber, G. (2018). **Projecting Climate-Related Disease Burden: A Guide for Health Departments.** Accessed 3/26/18 at [https://www.cdc.gov/climateandhealth/pubs/projectingclimaterelateddiseaseburden1\\_508.pdf](https://www.cdc.gov/climateandhealth/pubs/projectingclimaterelateddiseaseburden1_508.pdf)

Madsen, W., Ambrens, M. & Ohl, M. (2019) Enhancing resilience in community-dwelling older adults: A Rapid review of the evidence and implications for Public Health Practitioners. *Frontiers in Public Health*, 7(14), 1-14.

# Questions?

▶ Contact

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