

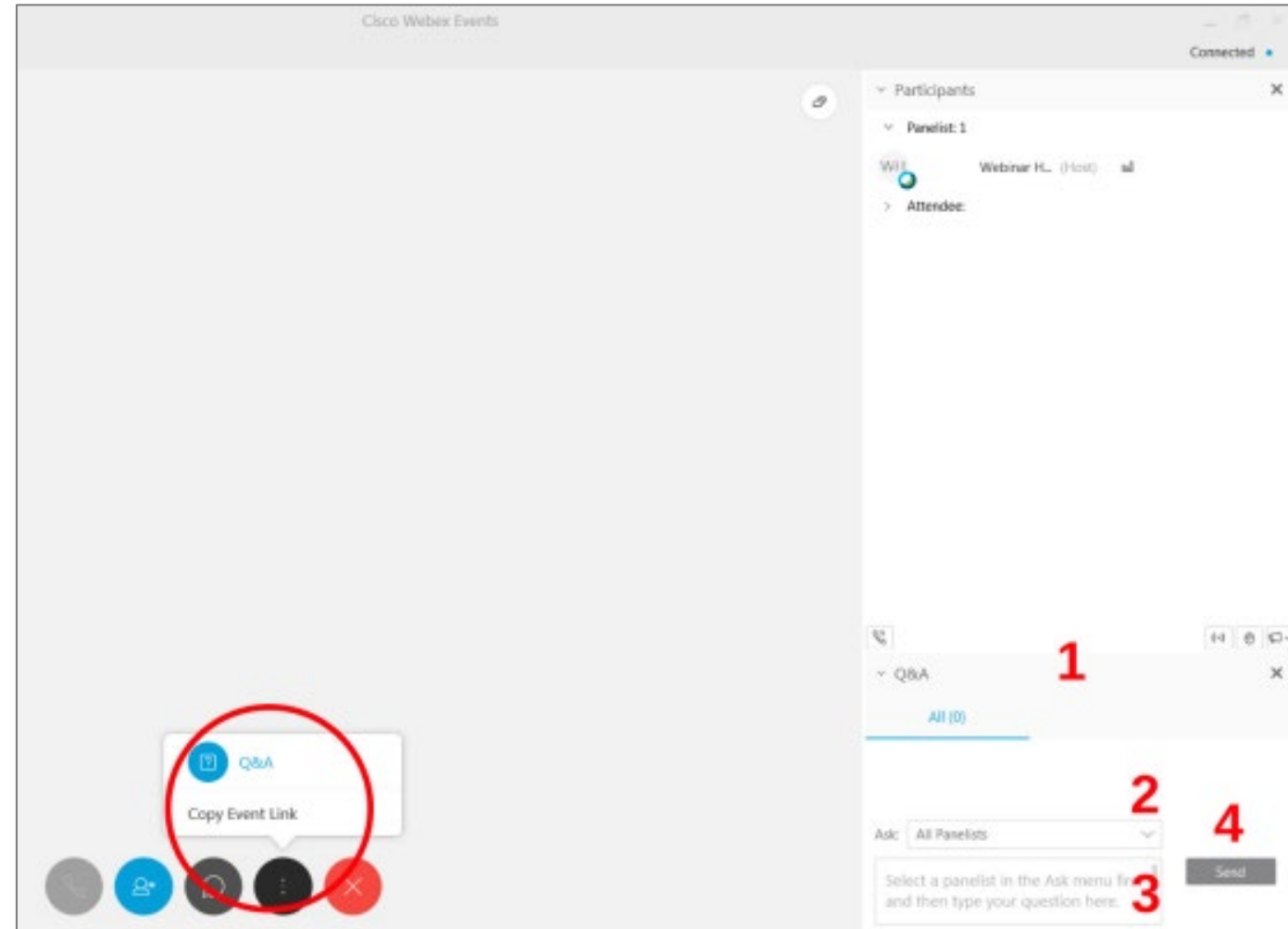
# Addressing the Impacts of Climate Change through Law and Policy

August 22, 2019

Co-sponsored by:

## How to Use WebEx Q & A

1. Open the Q&A panel
2. Select “All Panelists”
3. Type your question
4. Click “Send”



## Moderator



**Jill Krueger**, Director, the Network for Public Health Law  
– Northern Region Office

- J.D., University of Iowa College of Law
- Research interests/areas of expertise:
  - Mental health and well-being
  - Rural health
  - Climate resilience
  - Agricultural and food law
  - Oral health

## Presenter



**Natasha DeJarnett**, Research Coordinator, National Environmental Health Association

- Ph.D. and M.P.H., University of Louisville, School of Public Health and Information Sciences
- Research interests/areas of expertise:
  - Environmental health workforce
  - Environmental epidemiology
  - Climate change and health
  - Air quality

## Presenter



**Rob Croll**, Policy Analyst/Climate Change Program  
Coordinator, Great Lakes Indian Fish & Wildlife Commission

- M.E.L.P., Vermont Law School
- Research interests/areas of expertise:
  - Impact of climate change on treaty hunting, fishing & gathering practices
  - Integration of Traditional Ecological Knowledge (TEK) and western science in climate change research and adaptation
  - Treaty rights jurisprudence



## Presenter



**Justin Gundlach**, Attorney, Institute for Policy Integrity,  
New York University School of Law

- J.D., New York University
- L.L.M., Georgetown University
- Research interests/areas of expertise:
  - Energy law and policy
  - Environmental law
  - Climate litigation



# Climate and Health

The Network for Public Health Law

August 22, 2019

National Environmental Health Association || NEHA

Natasha DeJarnett, PhD, MPH

# About NEHA



## OUR MISSION

*To advance the environmental health professional for the purpose of providing a healthful environment for all.*

## ABOUT NEHA

NEHA empowers and educates environmental health professionals, providing them the tools and resources they need to make the greatest contributions possible in creating healthy environments that we all seek.

## OUR MEMBERS

The success of NEHA depends on the success of our **6,000 members**, who serve as the “boots on the ground” in their communities, possessing the knowledge and experience to address and respond to issues.

## OUR COMMITMENT

NEHA provides the highest quality trainings, courses, tools, and resources to empower professionals to become trusted leaders and experts in their profession.





# Climate and Health NEHA

## Government Affairs

Helped secure:

- **\$1.1 billion** for Zika
- **\$10 million** for CDC's Climate and Health Program
- **\$200 million** for CDC's hurricane recovery
- Pandemic and All Hazards Preparedness Act (**PAHPA**)

## Local Support

Climate and Health Mini Grants



## Informing Policy

Emergency Preparedness report

American Climate Metrics Survey paper

AEC Ambassador Training workshop

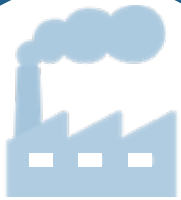
100% Clean Energy Declaration

## Member Engagement

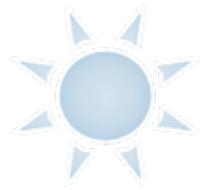
Policy statements



# Health Threats



**Air  
Quality**



**Extreme  
Heat**



**Extreme  
Weather**



**Extreme  
Precipitation**



**Vectorborne  
Diseases**

# Air Quality

## EXPOSURES



Air Pollution



Extreme Heat



Wildfire Smoke



Allergens

Poor air quality exposure can harm human health and wellbeing

## HEALTH OUTCOMES



Asthma



Heart Disease



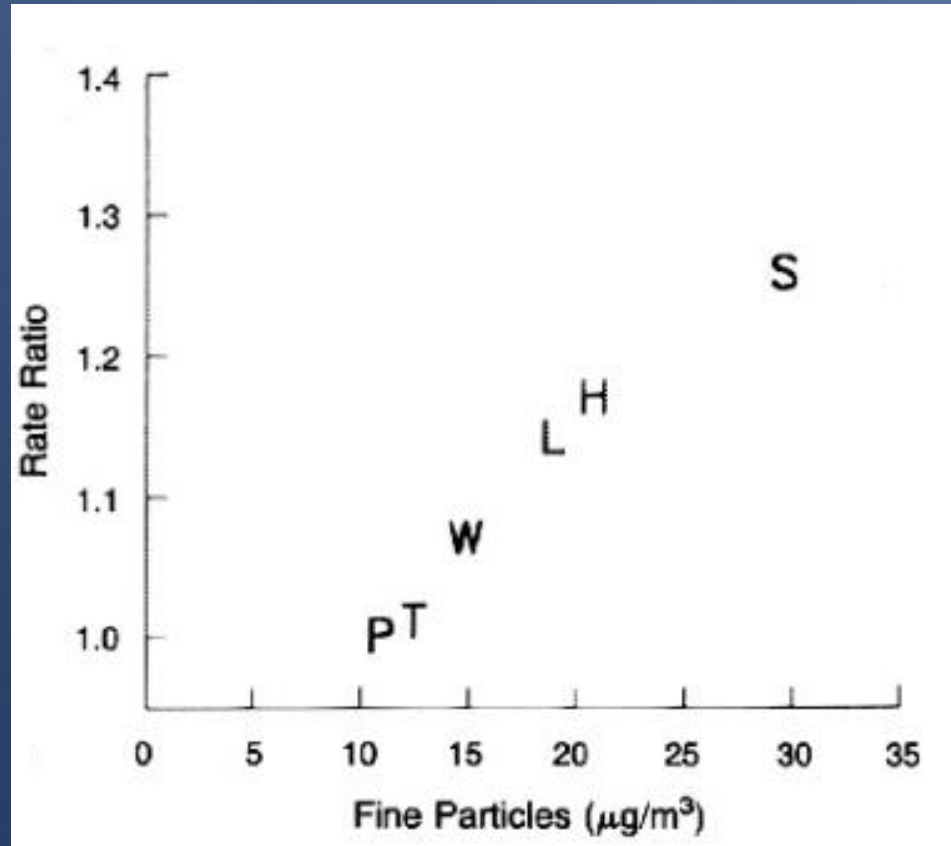
Allergies



School/Work Absences

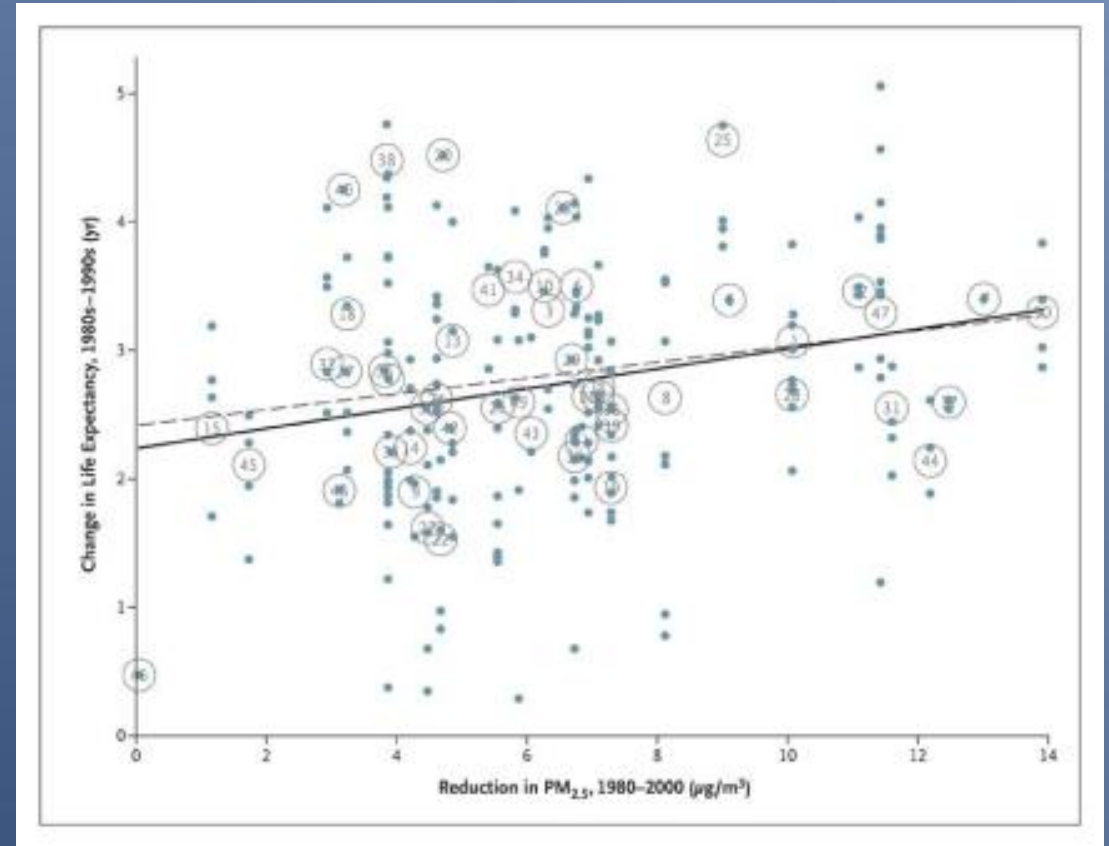
# Air Quality

More polluted cities have **higher mortality** rates



Dockery et al. 1993

Higher pollution is associated with **shorter** life expectancy



Pope et al. 2009

# Air Quality

Air pollution exposure **increases** risk of cardiovascular disease **mortality** from **5-15%**.

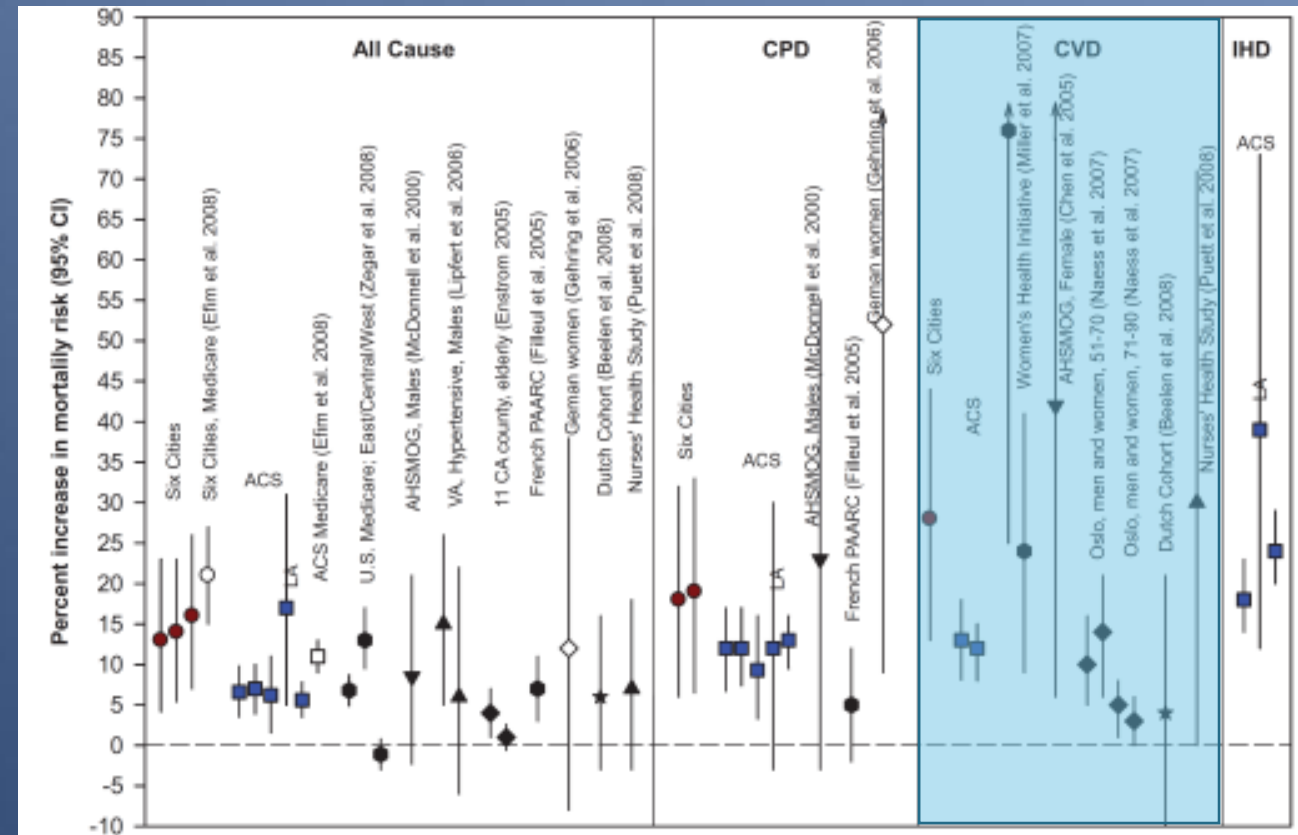
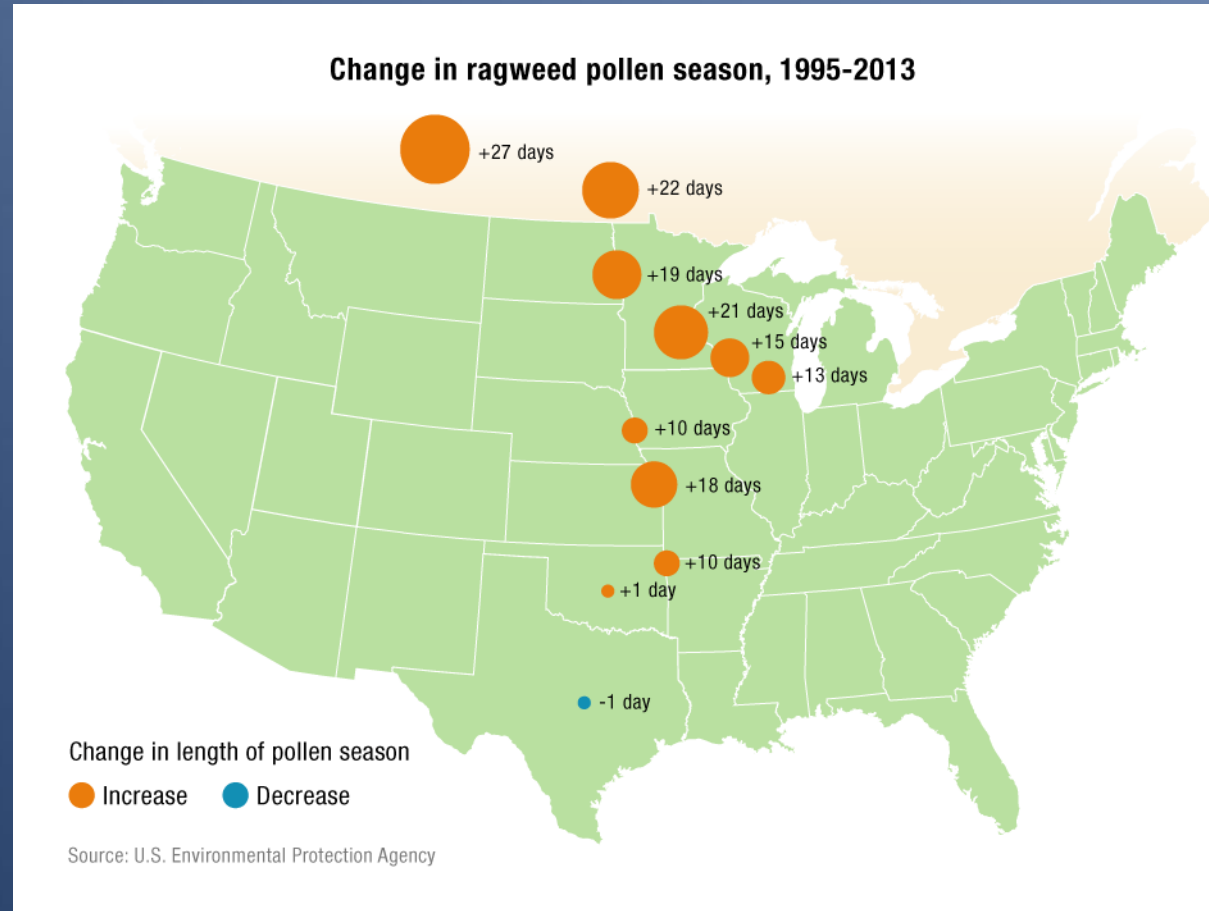


Figure 1. Risk estimates provided by several cohort studies per increment of  $10 \mu\text{g}/\text{m}^3$  in  $\text{PM}_{2.5}$  or  $\text{PM}_{10}$ . CPD indicates cardiopulmonary disease; IHD, ischemic heart disease.

# Air Quality

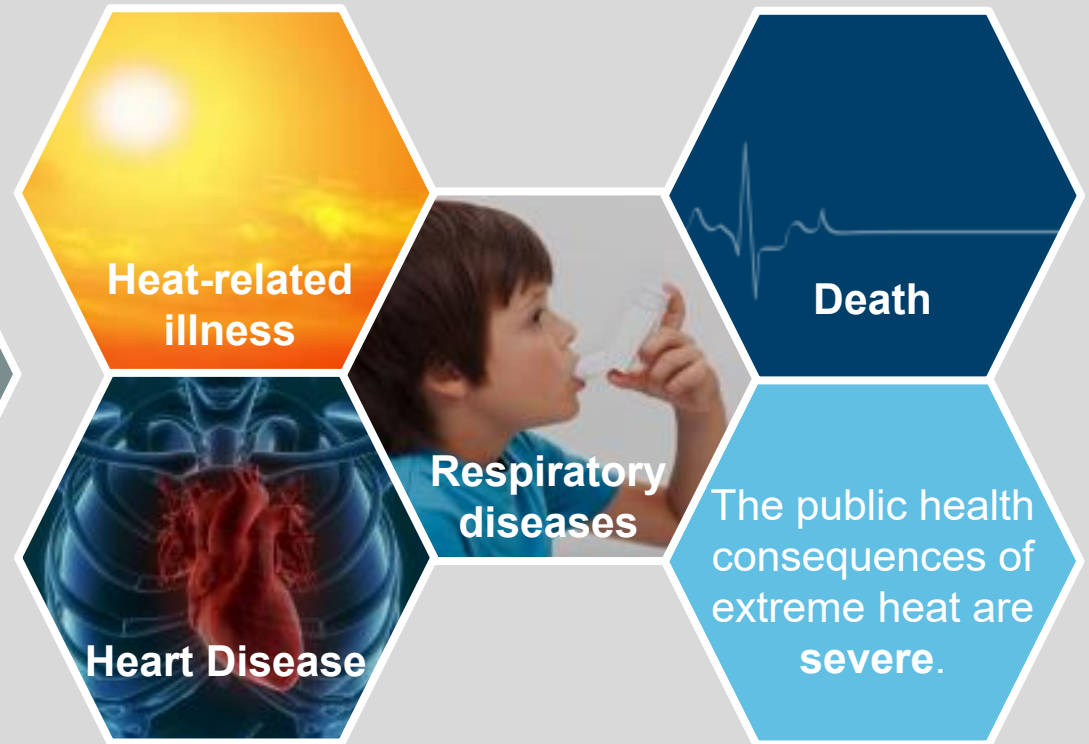
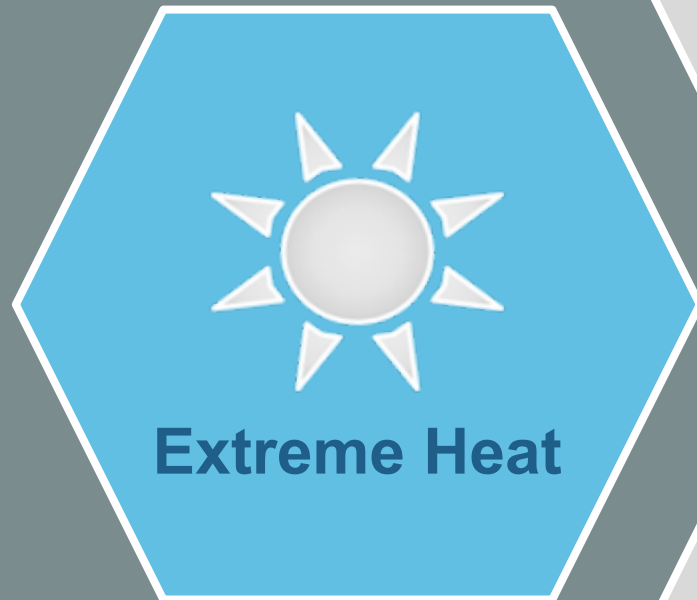




# Extreme Heat

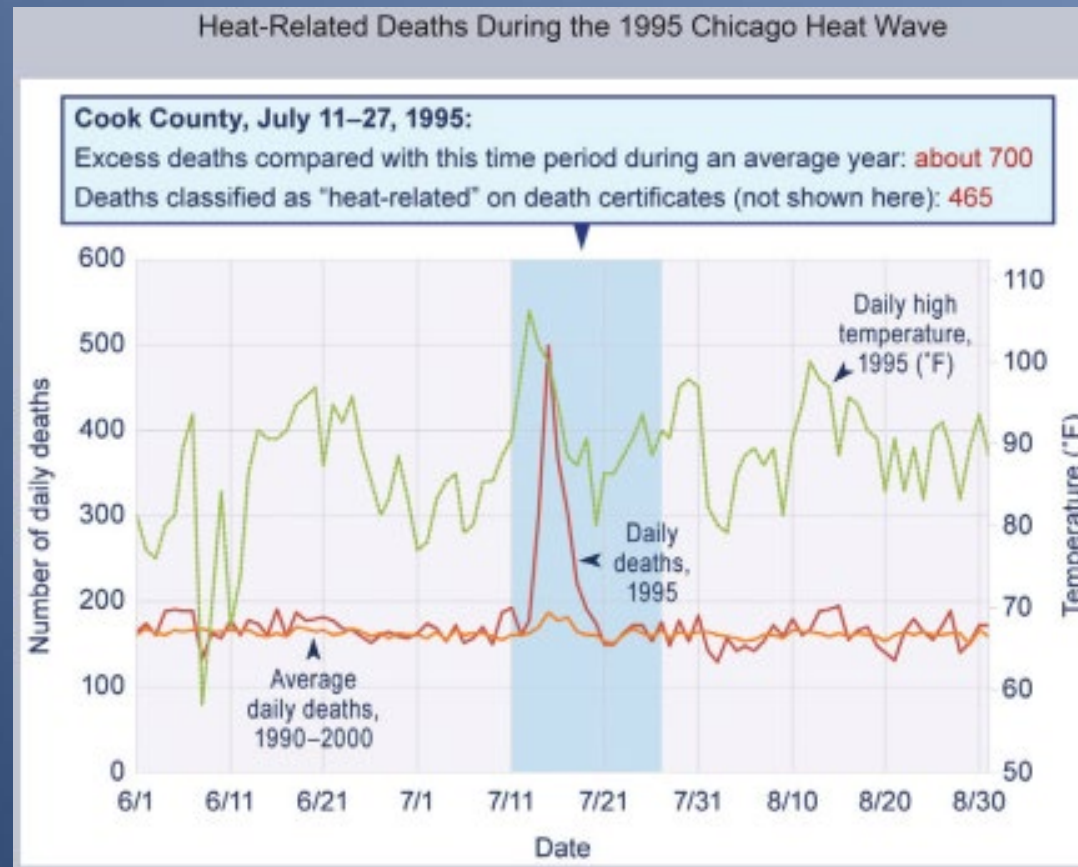
Heat is the **top cause** of natural weather-related death in the US. (NOAA 2017)

Climate change increases the **frequency** and **severity** of heat waves.



# Extreme Heat

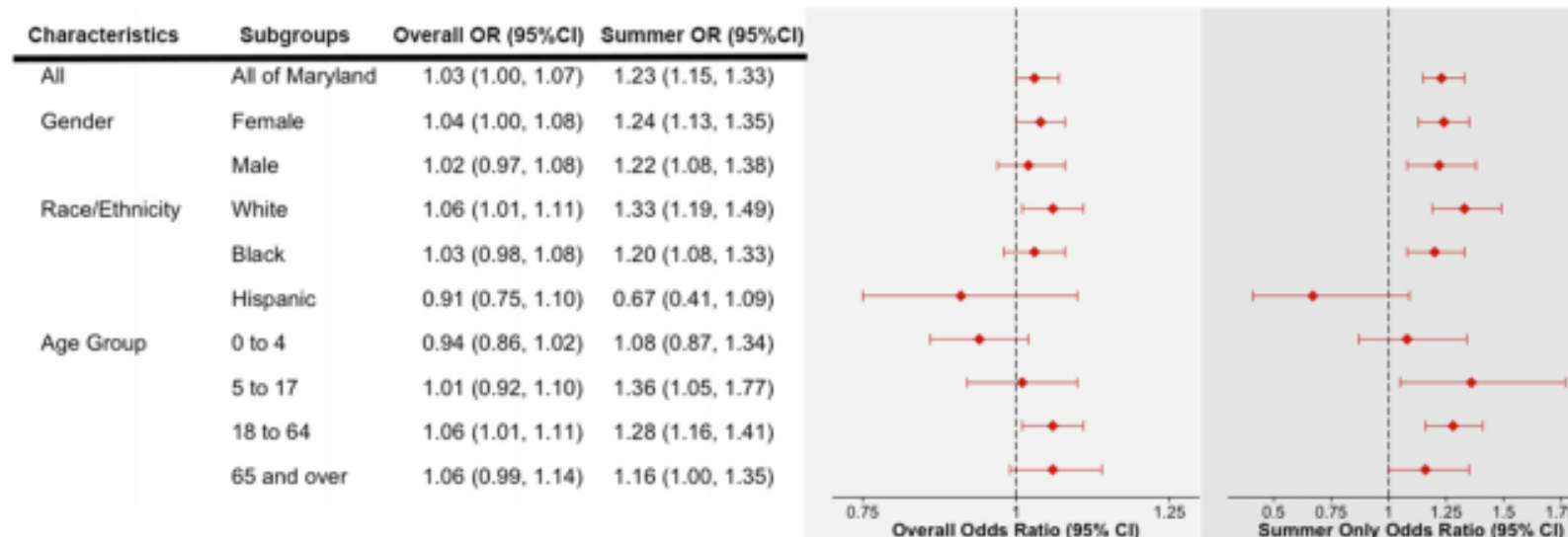
Heat waves  
**increase**  
risk of death.



USGCRP, 2016

# Extreme Heat

Extreme Heat Exposure **Increases Risk** of **Asthma** Complications

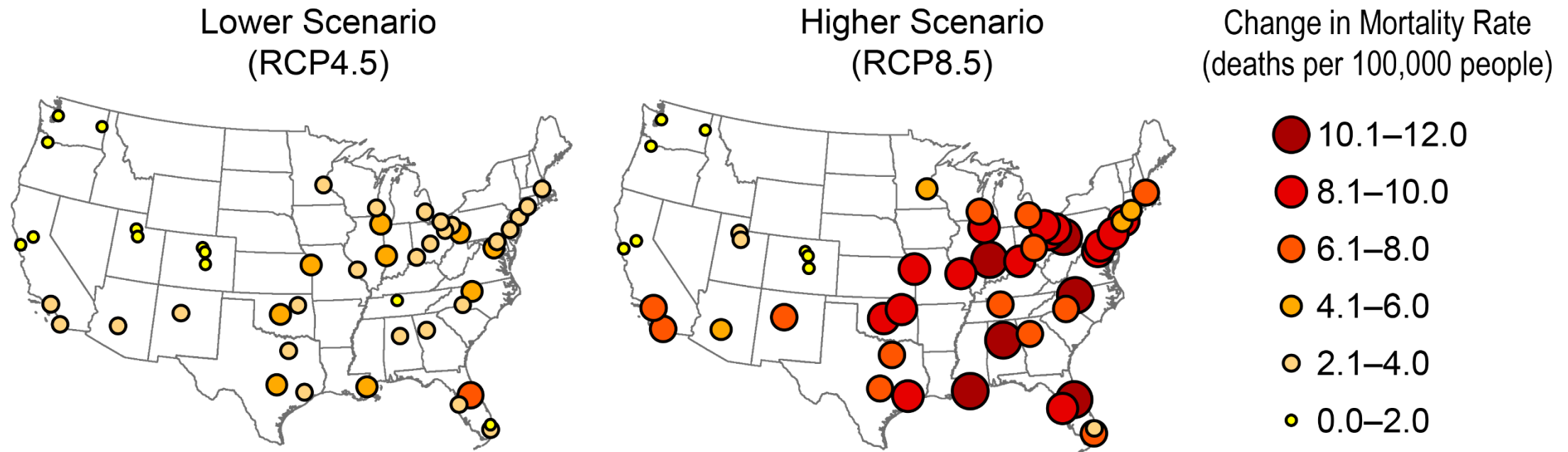


**Fig. 1** Odds Ratios (ORs) and 95 % Confidence Interval (95 % CI) for Exposure to Extreme Heat Events and Risk of Hospitalization for Asthma in Maryland Between 2000 and 2012, adjusted for extreme precipitation event

Soneja et al. 2016

# Extreme Heat

**Mortality Risk** Associated with Temperature Changes is Expected to **Rise**



USGCRP, 2018

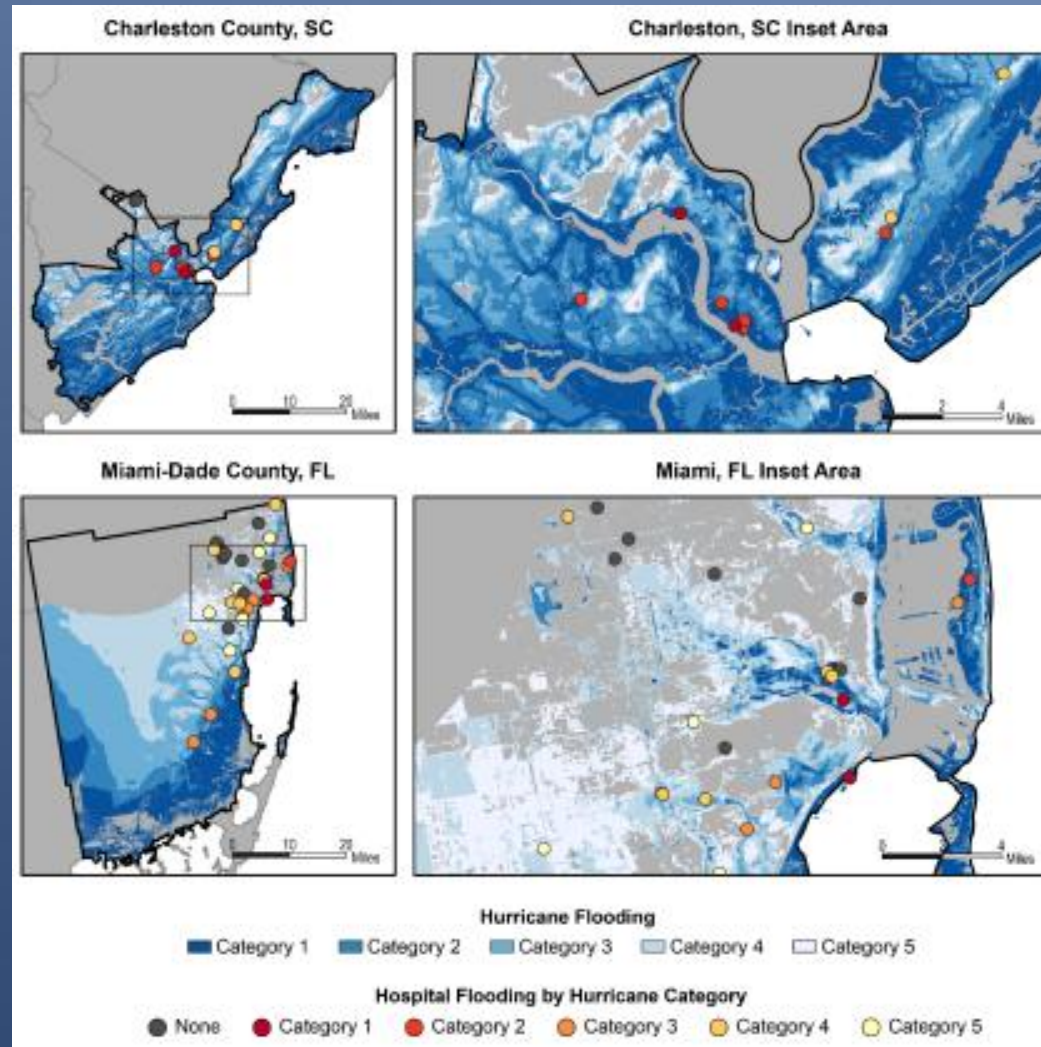


# Extreme Weather



# Extreme Weather

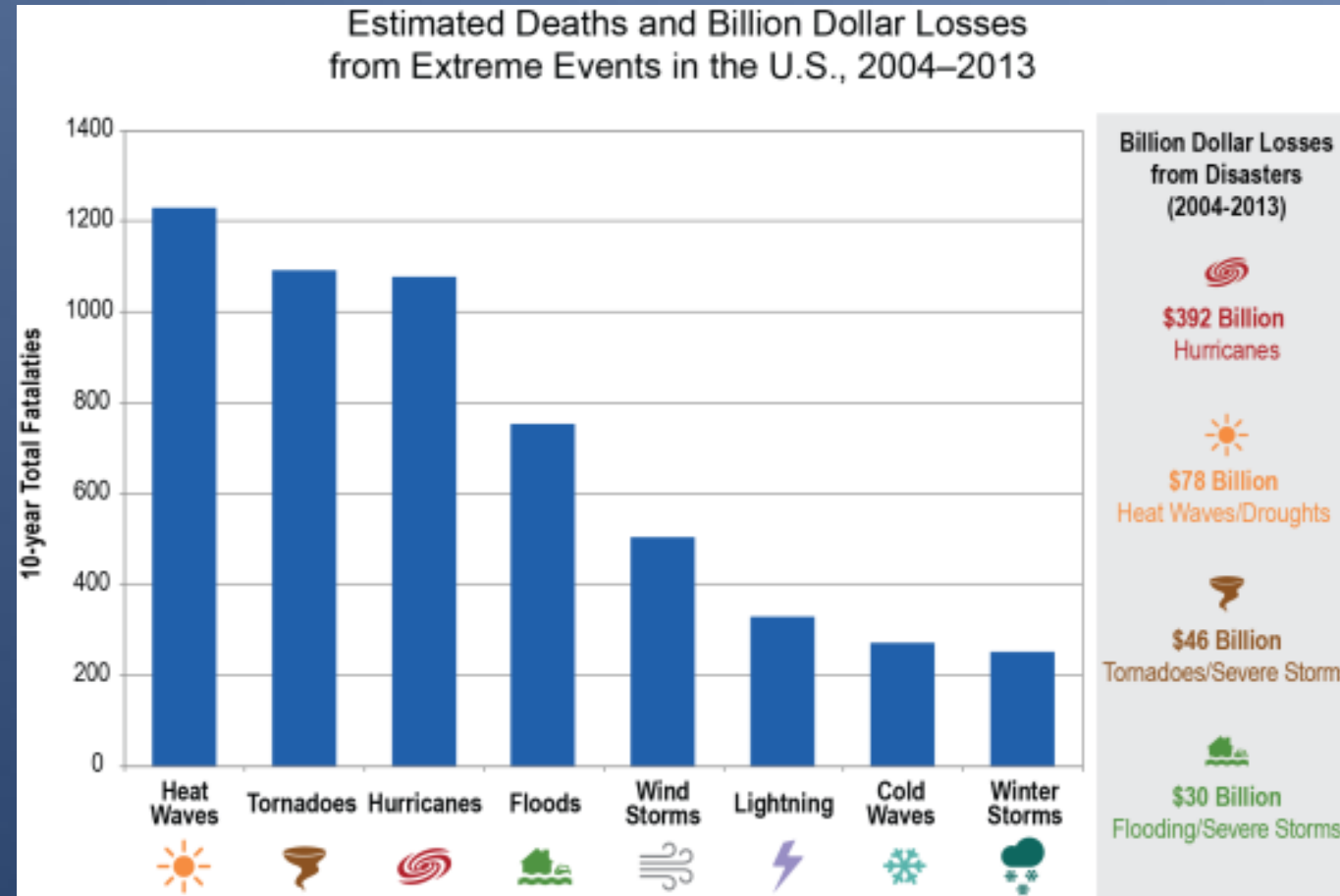
Extreme weather events **disrupts access** to needed services.





# Extreme Weather

The impacts of extreme weather are **costly** – in both the **health** and **economic** toll.

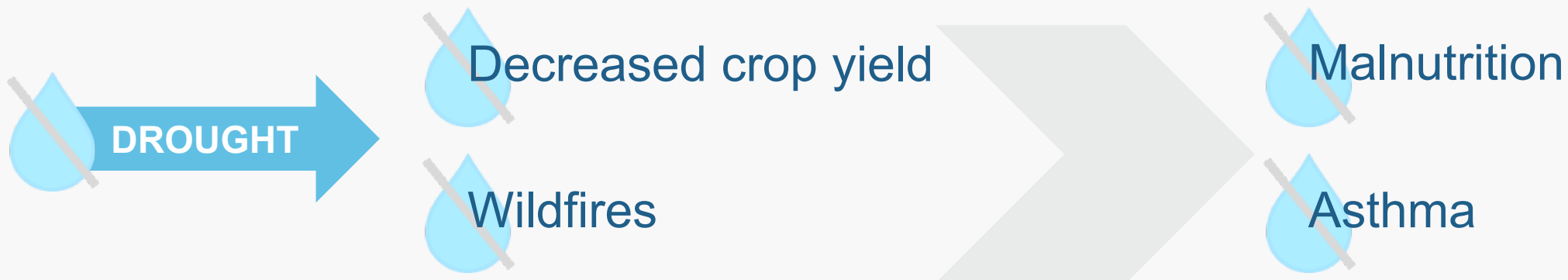


USGCRP, 2016

# Extreme Precipitation

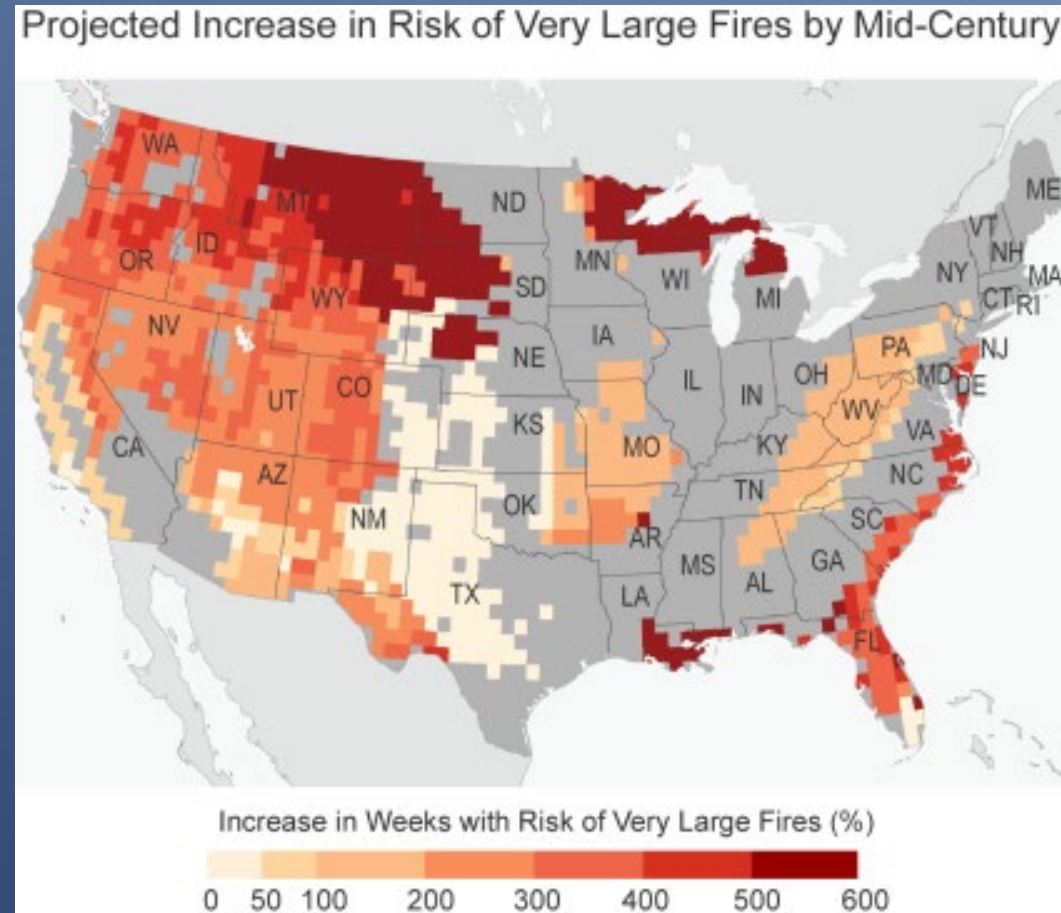


Precipitation extremes harms physical and mental health, community infrastructure, and the economy.



# Extreme Precipitation

The incidence of very large wildfires are projected to **increase**.



USGCRP, 2016

# Extreme Precipitation

Drought may **reduce crop yields**, which could **decrease food security**.

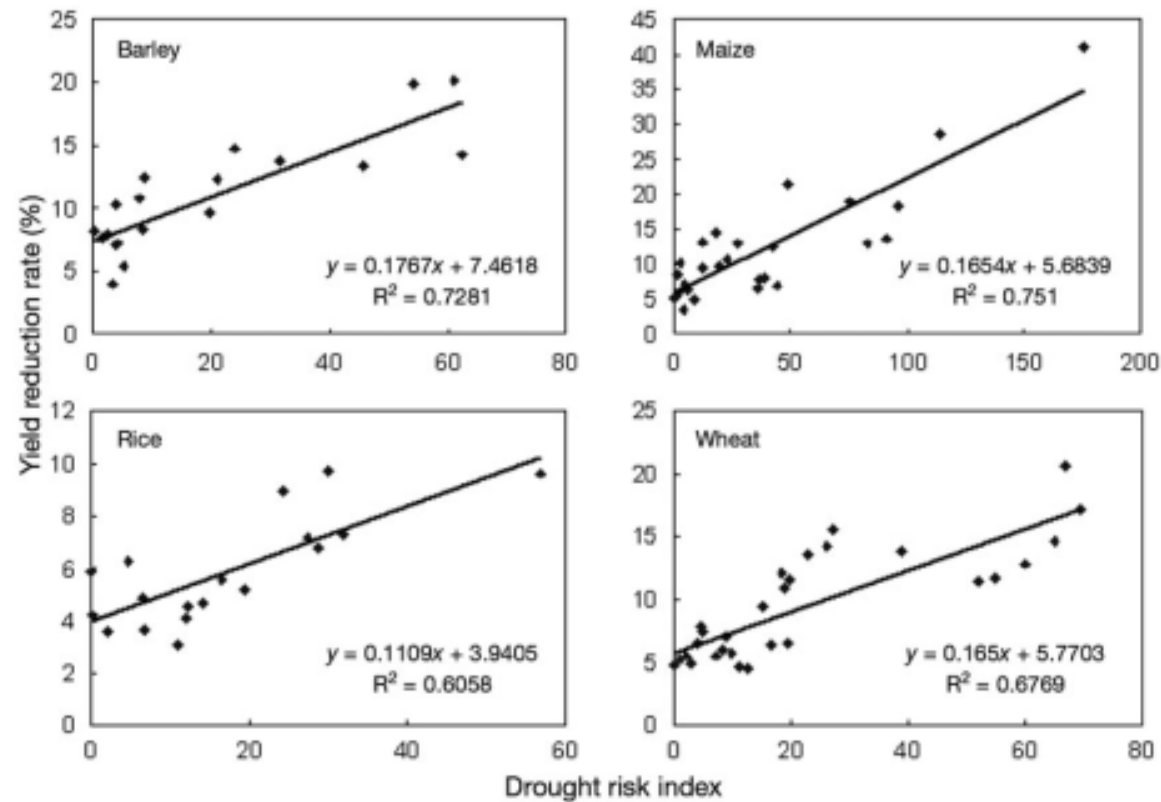
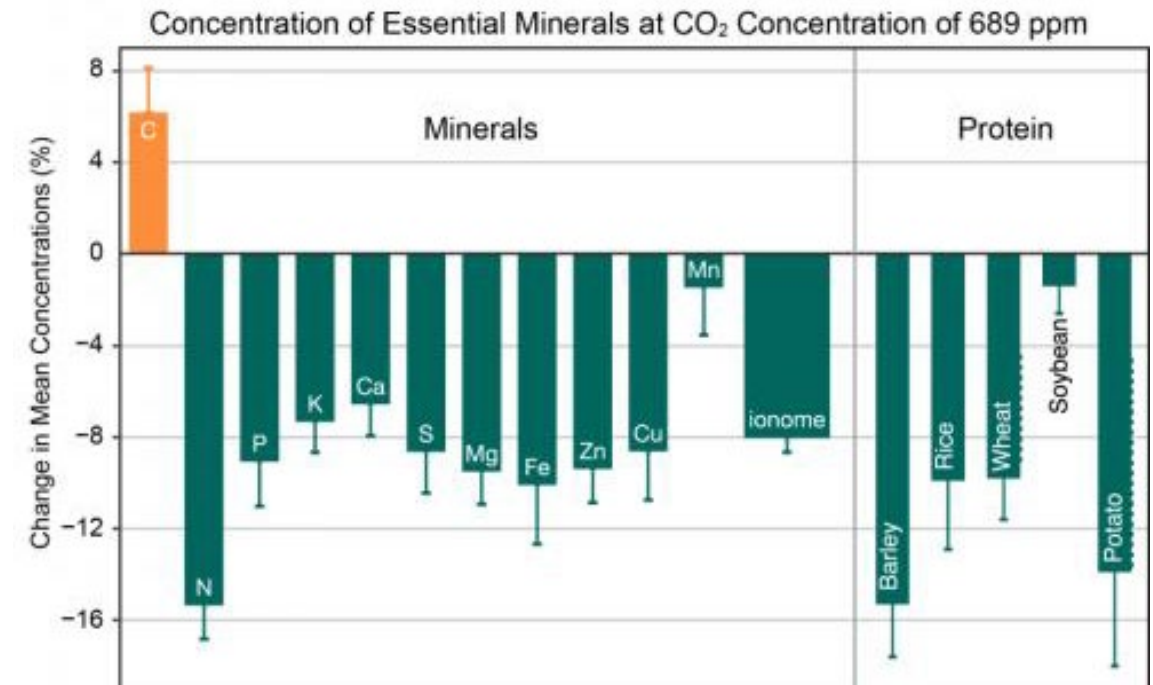
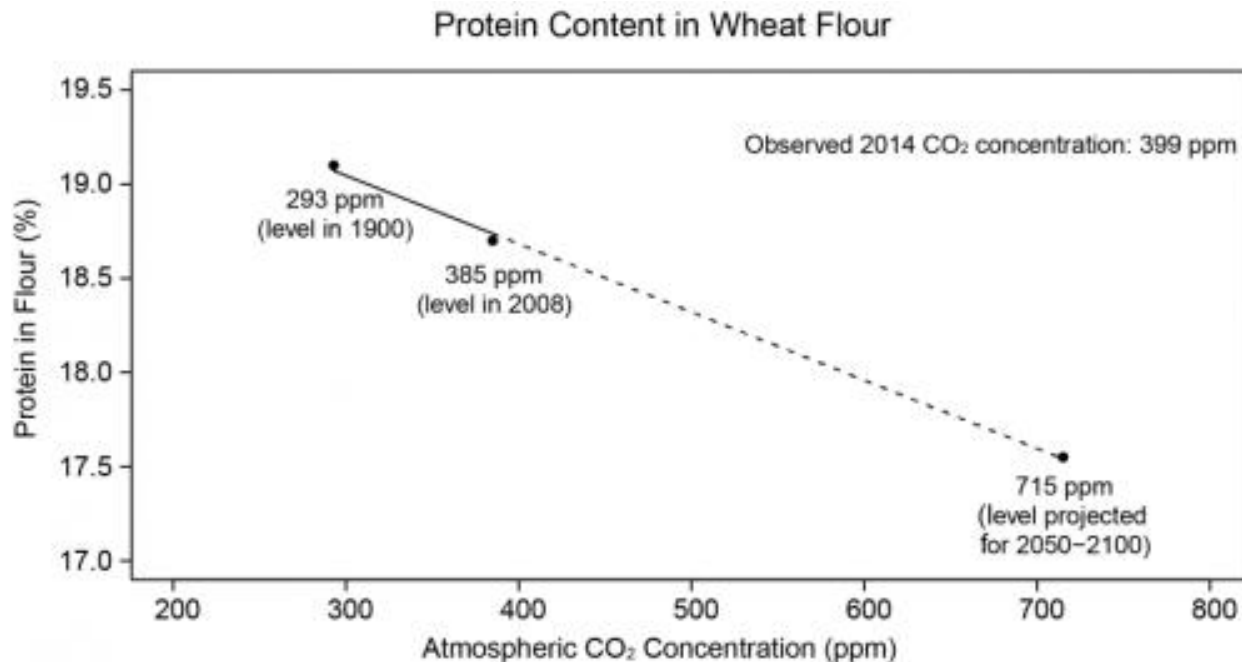


Fig. 8. Correlation between drought disaster risk index and yield reduction rate of major cropland. Dots represent different production countries. All correlation coefficients passed the 0.01 significance-level test. Note different axis scales

# Extreme Precipitation

Higher temperatures and higher carbon dioxide may **decrease** the **nutrient quality** of crops.



USGCRP, 2016

# Vectorborne Disease

Climate change increases the **amount** and **geographic distribution** of disease-carrying mosquitos and insects.



**Vectorborne  
diseases**

**Lyme disease**



**West Nile virus**



**Zika virus**

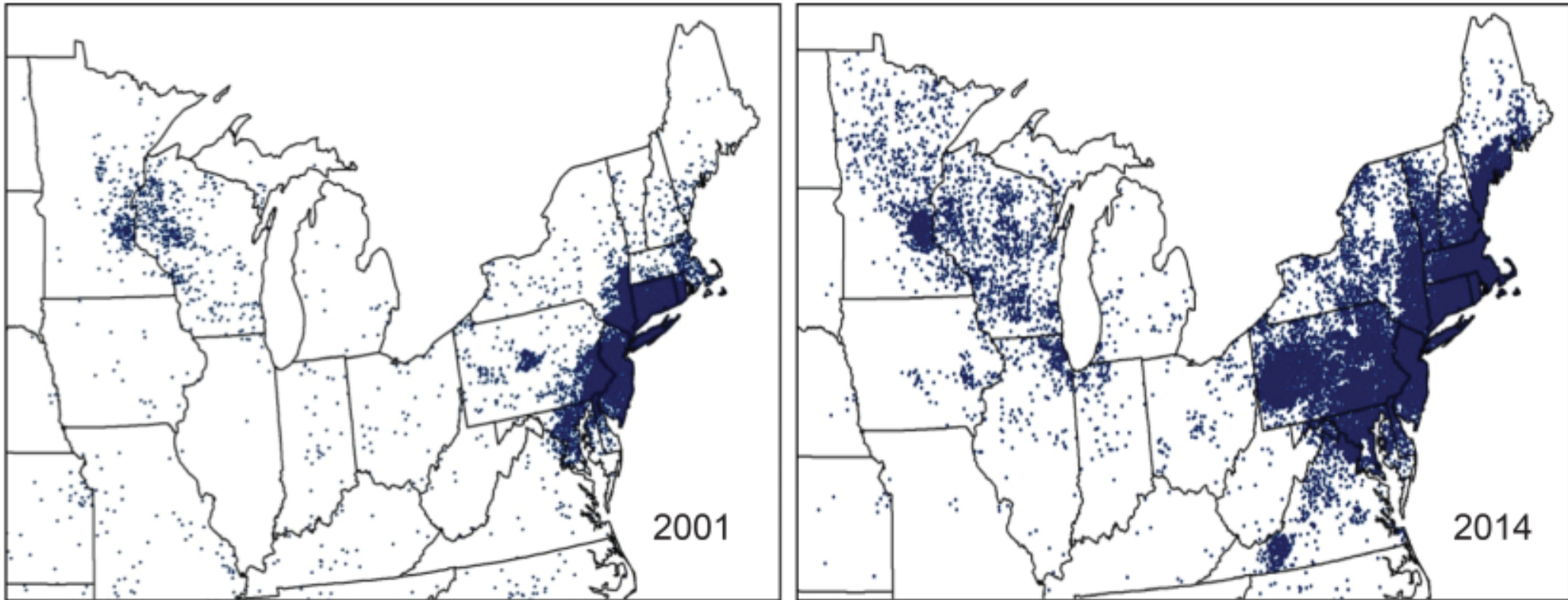




# Vectorborne disease

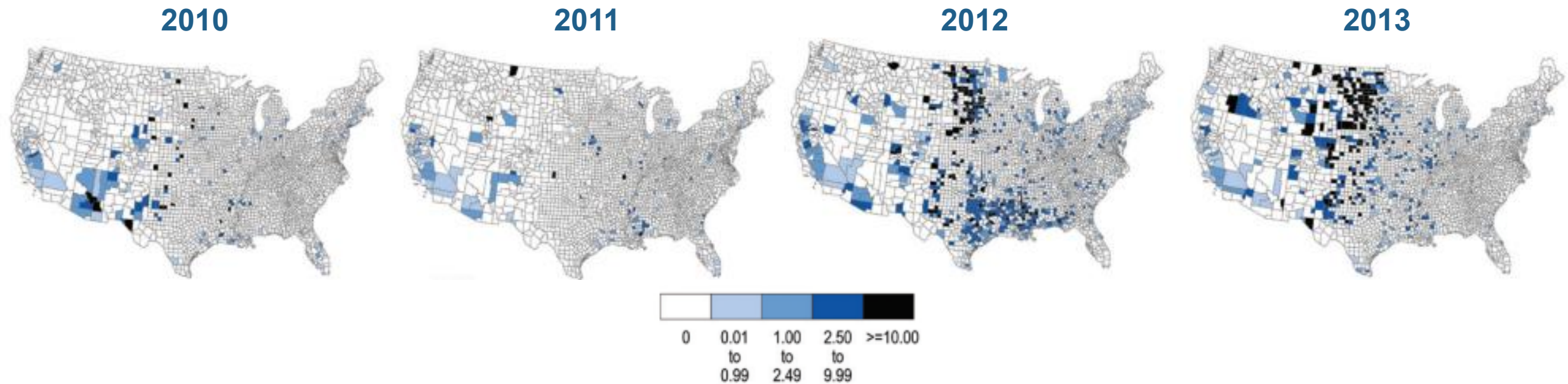
**Lyme disease** has become **more common** in the Northeast and Upper Midwest.

Changes in Lyme Disease Case Report Distribution



# Vectorborne Disease

New cases of **West Nile virus** are **increasing** in the US



**Figure 5:** Maps show the incidence of West Nile neuroinvasive disease in the United States for 2010 through 2013. Shown as cases per 100,000 people. (Data source: CDC 2014)<sup>73</sup>

# It's Not *Just* Physical Health



Climate change threatens mental wellness:

**Stress**

**Anxiety**

**PTSD**

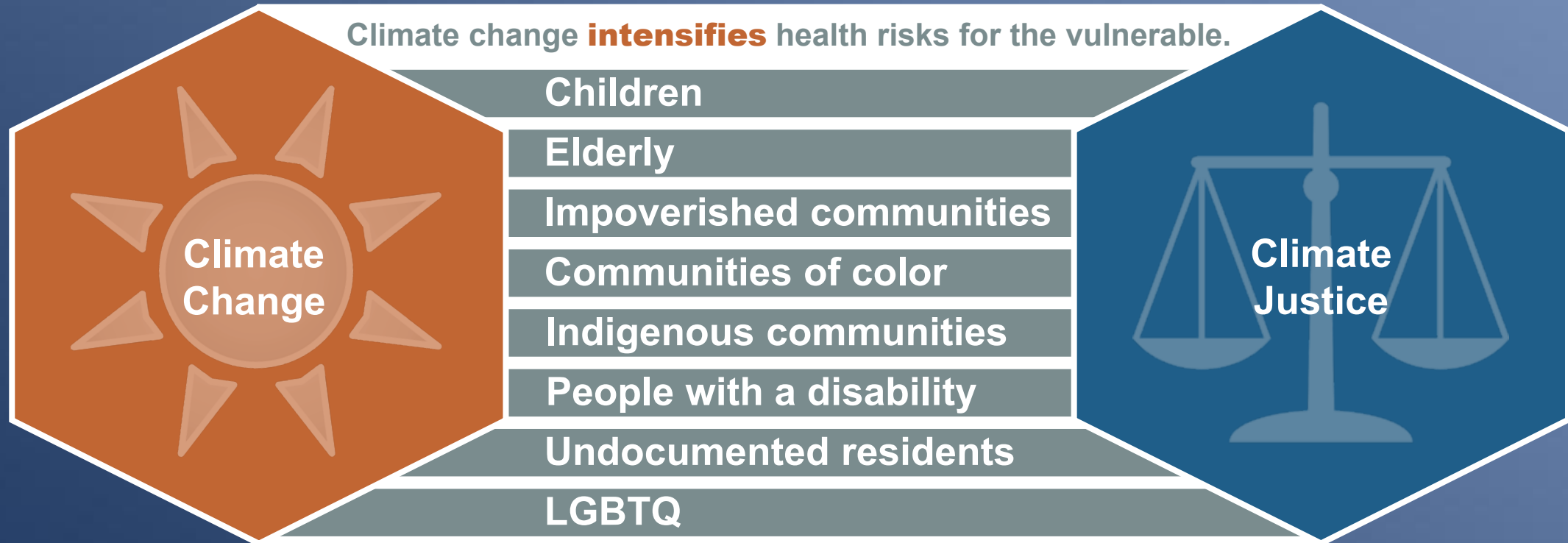
**Depression**

**Violence**

**Suicide**

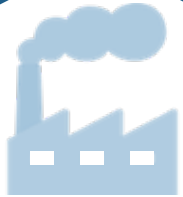
**Medication interaction**

# Vulnerable Populations



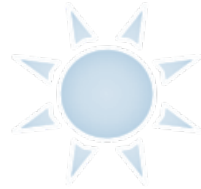
# Climate and Health Adaptation

## Environmental Health Workforce Roles



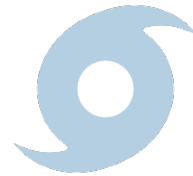
### Air Quality

- Test air quality
- Disseminate alerts
- Enforce air quality regulations



### Extreme Heat

- Educate
- Disseminate alerts
- Assure cooling center access



### Extreme Weather

- Disseminate alerts
- Ensure evacuation access



### Extreme Precipitation

- Assess water and soil quality
- Issue water advisories



### Vectorborne Diseases

- Educate
- Vector control
- Eradicate vector-prone areas



# NEHA Endorses the US Call to Action



**Builds on the 2018 Global Call to Action on Climate and Health.**

**U.S. CALL TO ACTION  
ON CLIMATE, HEALTH, AND EQUITY:  
A POLICY ACTION AGENDA**

2019



## Themes:

- Climate change is a health emergency -- one of the greatest threats to world health.
- We are dedicated to improving the health of our patients, communities, and planet.
- Action to reduce climate change can dramatically improve health -- but it must be at policy-level scale.
- Equity must be central to climate action.



**With the right policies and investments, we have the opportunity to realize our vision of *healthy people in healthy places on a healthy planet.***

Sign for your Organization

<https://climatehealthaction.org>

2019 U.S. Call to Action On Climate, Health, and Equity

A Policy Action Agenda



# Thank You



**Natasha DeJarnett, PhD, MPH**

Research Coordinator

Programs and Partnership Development

National Environmental Health Association

[NDeJarnett@neha.org](mailto:NDeJarnett@neha.org)

 @DrDeJarnett

# **Dibaginjigaadeg Anishinaabe Ezhitwaad**

**(Doing something the Anishinaabe way)**

**Treaty Rights, Public Health and Climate Change**



**Rob Croll  
Policy Analyst/Climate Change Program Coordinator  
August 22, 2019**





# What is GLIFWC?

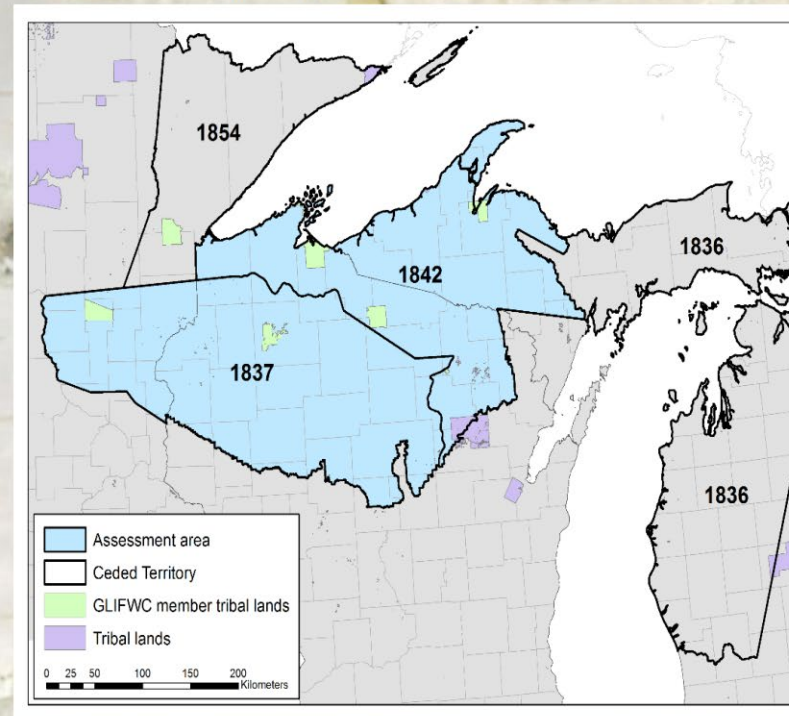
A “tribal organization” (PL 93-638)

exercising authority delegated by its 11 member tribes  
to implement federal court orders and interjurisdictional  
agreements related to their treaty rights.



- GLIFWC assists its member tribes in:

- Securing and implementing treaty guaranteed rights to hunt, fish and gather in the 1836, 1837, 1842 and 1854 Chippewa treaty ceded territories.
- Cooperatively managing, restoring and protecting ceded territory natural resources and their habitats.





# Treaty Reserved Rights

---

## Treaty with the Chippewa

July 29, 1837

### Article 5

*The privilege of hunting, fishing , and gathering the wild rice, upon the lands, the rivers and the lakes included in the territory ceded is guarantied to the Indians, during the pleasure of the President of the United States.*

## “the pleasure of the President”

- **Canons of construction**
  - Construe treaties as they were understood by the tribes who negotiated them;
  - Construe treaties liberally in tribes’ favor (they didn’t speak the language or write the document)
- **Neither Congress nor the President have expressly terminated the rights**
- **Statehood did not terminate the rights (*Mille Lacs v Minnesota*, 526 US 172 (1999))**
- **The “Ain’t Misbehavin” Interpretation**



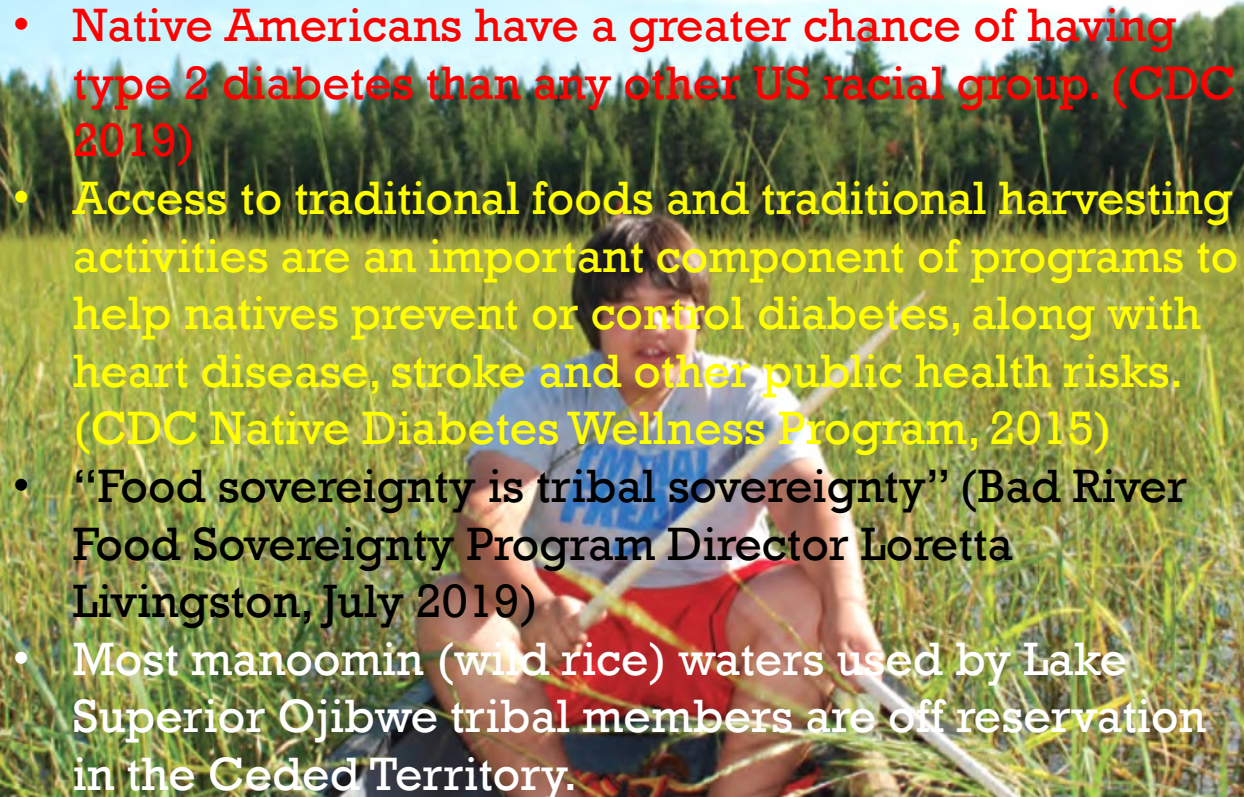
# Reaffirmed Treaty Rights

- Right to continue the traditional hunting, fishing and gathering way of life in all parts of the Ceded Territory, not just on their reservations
- Right to virtually all of the natural resources found in the Ceded Territory
- Entitled to a maximum of 50% allocation of harvestable resources
- Treaty rights are “tribal” rights – retained by tribes as sovereigns, not each individual member
- Tribes have regulatory authority (off reservation) over tribal members exercising the rights
- Tribes are required to co-manage ceded territory resources with other sovereigns (state & federal)



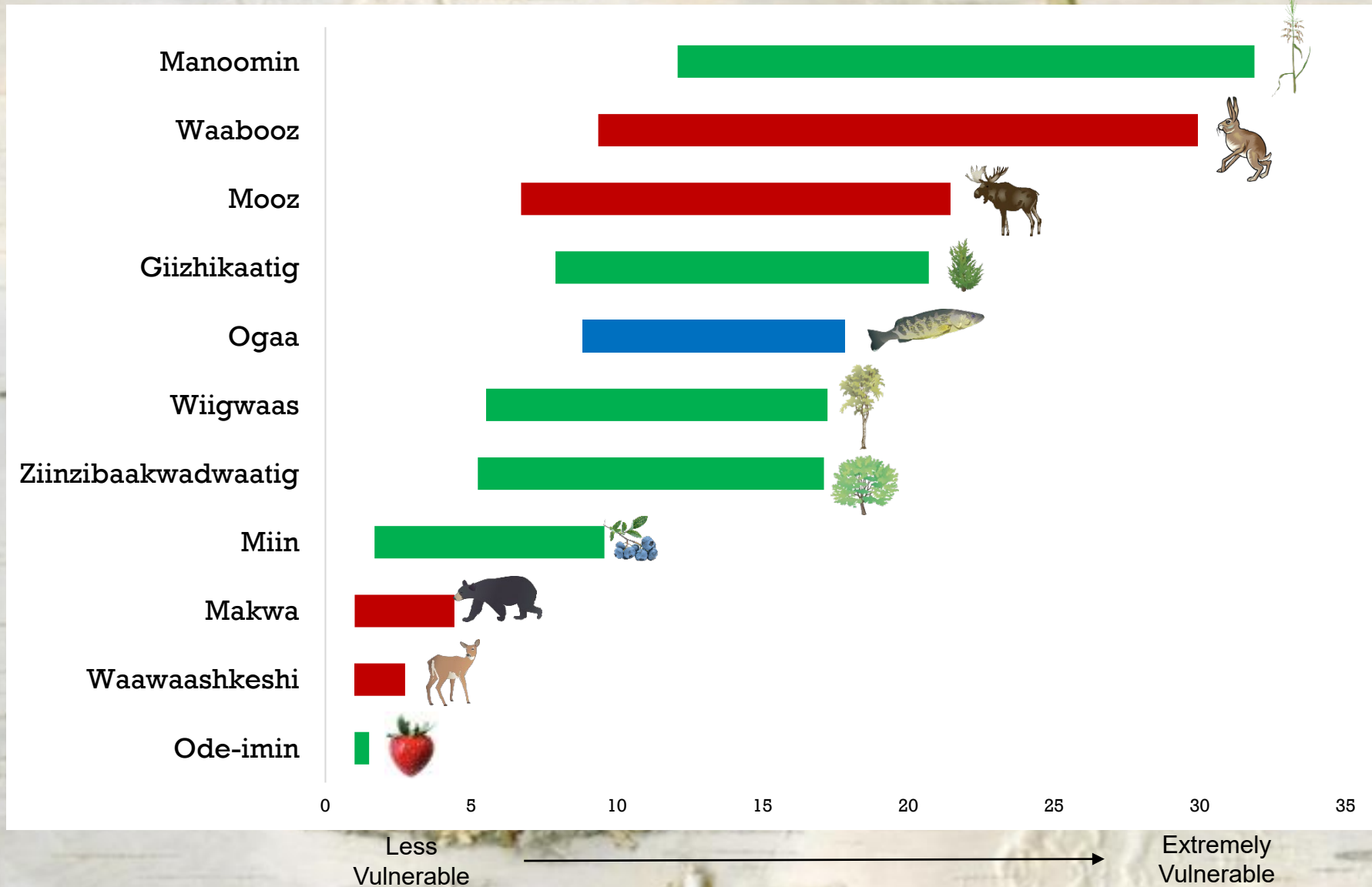


# Treaty Rights as Public Health Law?

- 
- A photograph of a person sitting in a small wooden canoe, using a long wooden pole to harvest wild rice in a marshy area. The person is wearing a blue t-shirt, red shorts, and a life preserver. The background shows a dense forest of green trees under a clear blue sky.
- Native Americans have a greater chance of having type 2 diabetes than any other US racial group. (CDC 2019)
  - Access to traditional foods and traditional harvesting activities are an important component of programs to help natives prevent or control diabetes, along with heart disease, stroke and other public health risks. (CDC Native Diabetes Wellness Program, 2015)
  - “Food sovereignty is tribal sovereignty” (Bad River Food Sovereignty Program Director Loretta Livingston, July 2019)
  - Most manoomin (wild rice) waters used by Lake Superior Ojibwe tribal members are off reservation in the Ceded Territory.

*Welcome to the Anishinaabe Walmart!*

# GLIFWC Climate Change Vulnerability Assessment



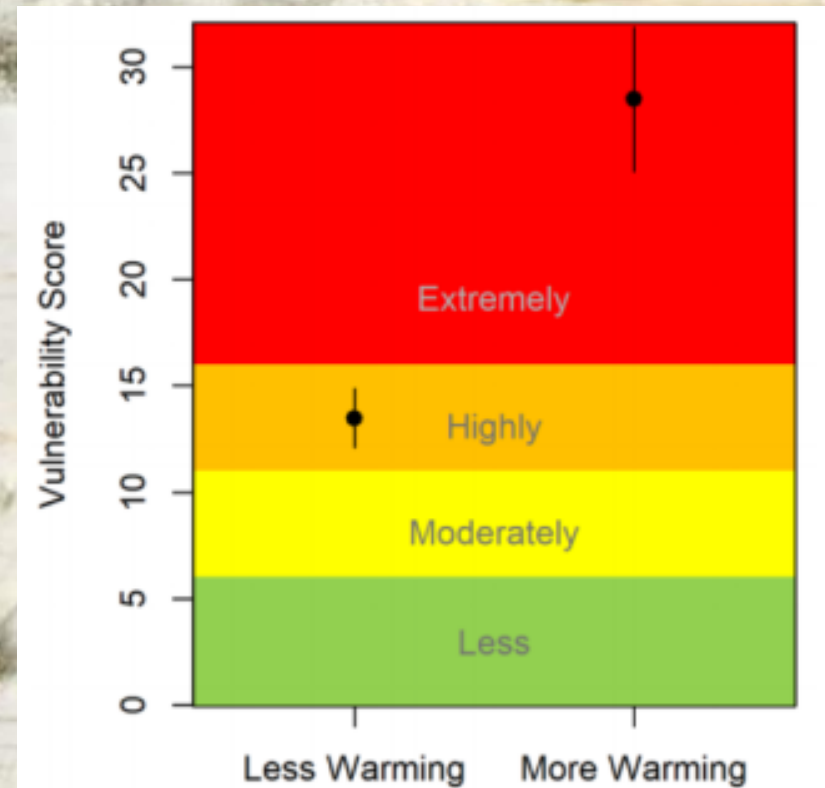


# Manoomin Vulnerability

- Natural barriers
- Human land use changes
- Limited dispersal
- Thermal niche
- Hydrological niche
- Disturbance regime
- Dependence on ice/snow
- Pathogens or natural enemies
- Competition
- Genetic variation
- Documented response to climate change



Confidence level: Moderate





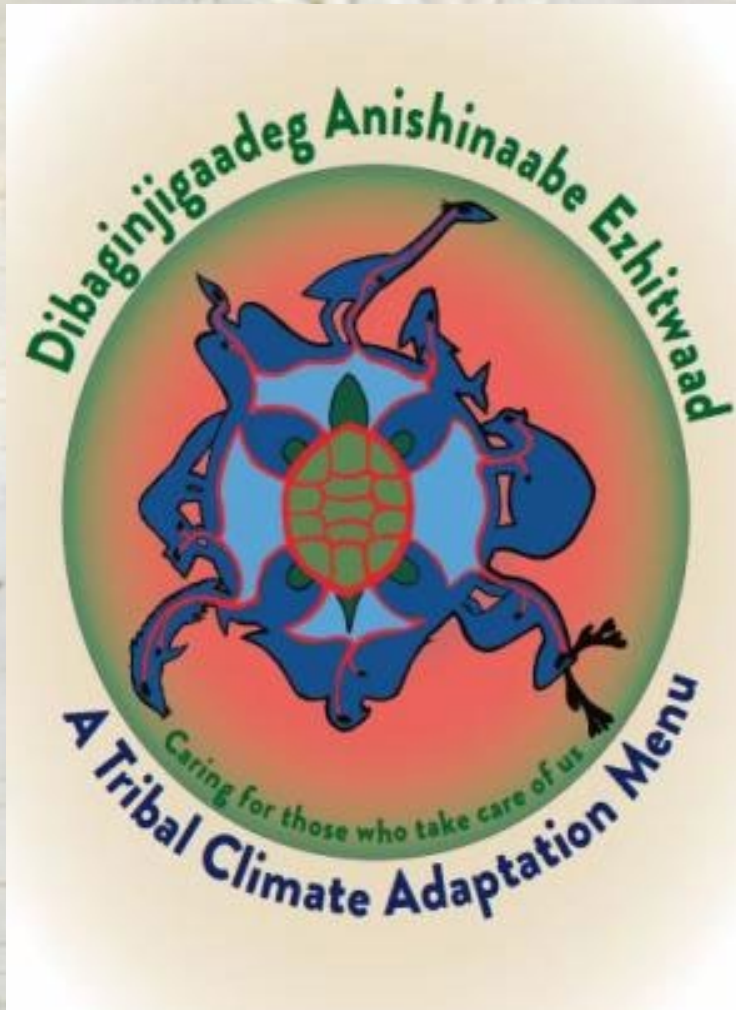
“Climate change is making liars out of our storytellers.” St. Croix

Ojibwe Elder Carmen Butler



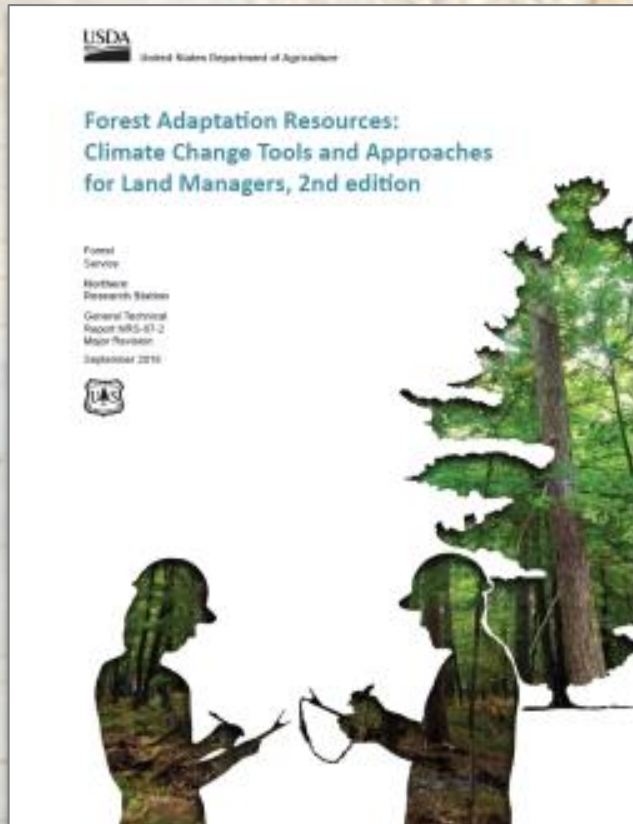


# Indigenizing Climate Change Adaptation





# Climate Change Response Framework



Swanston et al. 2016 (2<sup>nd</sup> edition)  
[www.nrs.fs.fed.us/pubs/52760](http://www.nrs.fs.fed.us/pubs/52760)  
(First ed, 2012)

## Strategies & Approaches Menus

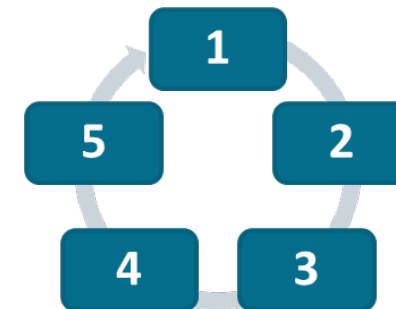
Menu of adaptation actions



## Adaptation Workbook

Structured process to integrate climate change considerations into management.

- Workbook approach



**Also online: [AdaptationWorkbook.org](http://AdaptationWorkbook.org)**



# The Basics

Respect

Reciprocity

Community

Relationships

Elders

Stories

Language

Historical and intergenerational trauma





# Guiding Principles

The guiding principles document describes detailed considerations for working with tribal communities

- Importance of Human/Non-Human Relationships
- Cultural Paradigms
- Community Engagement and decision making
- Ending a project and disseminating information
- Written from an Anishinaabe/Menominee perspective, but designed to be adapted to other indigenous peoples through the incorporation of their language, culture and perspective.

## Guiding Principles for Interacting with Tribes

### How to Develop Culturally Appropriate Climate Adaptation Actions



*Offering asemaashnôôgnemaw (tobacco). (Photo by Charlie Rasmussen, GLIFWC.)*

This document is intended to empower tribal governments, federal and state agencies, non-governmental organizations (NGOs), individual landowners and others to incorporate Anishinaabeg perspectives, specifically from the Great Lakes region, into a climate adaptation framework. We recognize the shortcomings of this document in our attempt to incorporate indigenous concepts, language, and cultural practices; a single document written in English can't fully capture what we intend to express. We hope that the perspectives given here offer users an additional lens with which to view the environment and facilitate a more culturally appropriate approach to working with tribal nations.

While the intent of this document is to give specific examples from one group of people, we encourage other tribes to edit these according to the needs of their individual community by adding language, words, and

concepts unique to that community. We should stress that the editing process be undertaken first, before initiating any project, as the intent behind this document is to ground climate change adaptation planning in knowledge that is unique to the perspective of each indigenous community.



# The Menu

- Designed for use by tribal communities and their non-tribal partner agencies.
- Designed to work with other NIACS products or as a stand-alone resource.
- Maintains the strategy/approach/tactic framework.
- The first three strategies address cultural practices, community engagement and recognizing human/non-human reciprocal relationships.
- Emphasizes that sometimes not doing something may be more important than rushing headlong into an action that has not been fully considered.

## Menu of Adaptation Strategies and Approaches

### Strategy 1: Consider cultural practices and seek spiritual guidance.

*Indigenous knowledges and ways can provide the backbone for successful climate adaptation. Seeking guidance from the community on adaptation needs and actions, respecting and building on dynamic relationships, and honoring cultural responsibilities and histories may benefit both short- and long-term adaptation efforts.*

#### 1.1. Consult cultural leaders, key community members, and elders.

*Cultural leaders, community members, knowledge holders, elders, and other key individuals have important knowledges and perspectives that can inform climate adaptation activities. Taking time to build relationships and properly consult with the broader community will result in more informed decisions and more support for adaptation actions.*

##### Example tactics:

- ✳ Conduct community engagement workshops to learn about past changes using specific examples or important resources as discussion points.
- ✳ Interview wild rice gatherers to discuss observed impacts on wild rice from storm events or changing lake levels.
- ✳ Work with tribal leaders and members to identify knowledgeable individuals in the community, such as elders, and how to consult with them in a good way.
- ✳ Build organizational capacity by funding outreach staff who are trained to discuss climate change with the community.



*Pat and Chibinesiban Jim Northrup from Fond du Lac Band of Lake Superior Chippewa. Chibinesiban Jim Northrup has since walked on. (Photo by Melanee Montano, GLIFWC.)*

#### 1.2. Consider mindful practices of reciprocity.

*Healthy relationships depend on reciprocal exchanges of gifts, knowledge, and respect, among others. For example, it is appropriate to offer asemua/nāqumawac (tobacco) when requesting permission to use a gift (resource). This principle applies to land management as well as interpersonal relationships within the community.*

##### Example tactics:

- ✳ Offer asemua/nāqumawac (tobacco) when requesting permission to use a gift (resource).
- ✳ Provide gifts when seeking guidance or knowledge from elders or community members.
- ✳ Share data and results of climate change assessments and adaptation projects with the local community.
- ✳ Ensure that teachers and contributors are credited in presentations, public documents, and materials.
- ✳ Teach harvesting in a good way, such as taking only what you need and leaving enough to sustain a population. For example, harvesters should refrain from harvesting wild rice when it is raining, because it can weaken the root system.

#### 1.3. Understand the human and landscape history of the community.

*Every place has a unique context and unique stories to tell. The history of the community and the land can inform land management decisions, and it is worth investing time and attention to cultivate a deeper understanding of a place before deciding on appropriate management actions.*

##### Example tactics:

- ✳ Identify and meet with Tribal Historic Preservation Officers and discuss the history of the local community.



### 5.2. Maintain or improve the ability of communities to balance the effects of bakaan ingoji ga-ondaadag (non-local beings).

*Bakaan ingoji ga-ondaadag is an Ojibwe term that describes non-local or invasive beings. When natural ecosystems are healthy and in balance, bakaan ingoji ga-ondaadag may not have a large or noticeable effect. As climate change continues to add stress and disturbance, there may be more opportunities for non-local beings to disrupt the normal function and health of an ecosystem. Climate adaptation may require respectful actions to minimize or prevent the establishment of non-local beings, particularly if they pose a threat to the health of the local movement.*

Example tactics:

- ✱ Wash equipment before using in management activities to prevent the spread of bakaan ingoji ga-ondaadag.
- ✱ Remove existing bakaan ingoji ga-ondaadag after communicating with beings in the local area to explain intended actions.
- ✱ Consider alternative uses of bakaan ingoji ga-ondaadag, such as harvesting non-local cuttail roots.
- ✱ Reduce large openings in the forest canopy and vehicle usage to minimize establishment of bakaan ingoji ga-ondaadag.
- ✱ Seek out traditional and/or cultural knowledge regarding bakaan ingoji ga-ondaadag from tribal communities where these beings are native by identifying and interviewing harvesters.
- ✱ Use a biological control method for bakaan ingoji ga-ondaadag that appear at a site, for example, using lupine to counteract growth of spotted knapweed.



*Meshkikiabi Boys and Girls Club hand pulling garlic mustard along the Bad River upstream of Bad River restoration with GLIFWC staff. (Photo by Dara Englaabre.)*

### 5.3. Manage herbivory to promote regeneration of impacted beings.



*PRO caption ?? (Photo by ???)*

*Because deer and other herbivores preferentially browse particular beings, it may be increasingly important to assist with the regeneration of desired beings. Managing herbivory alone may not promote desired beings, particularly since many deer and other herbivores are expected to increase as the climate warms. Thus, this Approach may be combined with other Approaches that encourage regeneration.*

Example tactics:

- ✱ Where possible, favor moose or elk in ungulate management rather than promoting a larger deer herd.
- ✱ Encourage tribal hunting to maintain appropriate deer populations.
- ✱ Adjust regulations to promote additional harvest by increasing number of tags issued in areas of heavy deer impacts on forest beings.
- ✱ Install deer exclosures or other physical barriers to prevent herbivory in particular areas.
- ✱ Encourage native predator populations, such as wolves, in a given area to control deer populations.

## Adaptation Actions

- Some strategies and tactics will look familiar, others are tailored to concepts contained in Anishinaabe/Menominee languages and worldviews and promote traditional lifeways.
- Revitalization of language and culture are important components of climate adaption in indigenous communities.
- Cross –sectoral – the menu has been used to plan forestry, fisheries, wildlife, wetland and infrastructure adaptation projects.



# Spur Lake State Natural Area - WI

## Goals:

- Promote re-establishment of wild rice.
- Maintain shallow, muck-bottomed lake for wildlife resources.

## Climate Challenges

- Increased water levels
- Current & potential invasives
- Altered water quality

Partners: WDNR, Sokaogon, Lac du Flambeau, GLIFWC, NIACS

## Tribal Adaptation Menu

- Gather TEK from local tribes to better understand Spur Lake and its history.
- Partner with GLIFWC to understand historical rice camps and past harvests.



[forestadaptation.org/SpurLakeSNA](http://forestadaptation.org/SpurLakeSNA)

## Wetlands Menu

- Monitor and control perennial aquatic plants that compete with wild rice.
- Clear snow off ice to increase ice depth to suppress competitive perennial species.
- Collaborate on wild rice seedbank study.
- Work with downstream landowners to install an appropriately-sized culvert or a small bridge.



# Miigwech!



Melonee Montano  
TEK Outreach Specialist  
[mmontano@glifwc.org](mailto:mmontano@glifwc.org)

Rob Croll  
Climate Change Program Coordinator  
[rcroll@glifwc.org](mailto:rcroll@glifwc.org)

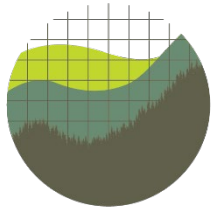
Hannah Panci  
Climate Change Scientist  
[hpanci@glifwc.org](mailto:hpanci@glifwc.org)

Tanya Aldred  
Furbearer/Climate Change Biologist  
[tanya.aldred@glifwc.org](mailto:tanya.aldred@glifwc.org)

Aaron Shultz  
Inland Fisheries Biologist  
[aaronshultz@glifwc.org](mailto:aaronshultz@glifwc.org)

[glifwc.org/ClimateChange](https://glifwc.org/ClimateChange)





Institute *for*  
**Policy Integrity**

NEW YORK UNIVERSITY SCHOOL OF LAW



**Columbia Law School**

---

**SABIN CENTER FOR CLIMATE CHANGE LAW**

# Climate Change, Public Health, and the Law: An Overview

# Climate Change, Public Health, and the Law

Edited by Michael Burger  
and Justin Gundlach



CAMBRIDGE

# Scope of Coverage

## Part I: The Context

- The Duty to Protect Public Health from Climate Change Impacts
- The Public Health Sector's Challenges and Responses

## Part II: Cross-cutting Issues

- Government Speech and the First Amendment
- Disease Surveillance
- The Built Environment

# Scope of Coverage

## Part III: Impacts and Interventions

- Heat
- Oceans and Coasts
- Infectious Disease
- Food Systems
- Migration

## Part IV: Interplay with International & Domestic Environmental Law

- International Institutions and the Developing World
- How Existing Environmental Laws Respond to Climate Change and Its Mitigation
- Incorporating Public Health Assessments into Climate Change Action

# Scope of Coverage for *Today*

- 2) Duty to Protect Public Health from Climate Change Impacts
- 4) Government Speech and Speech Regulation
- 6) The Built Environment
- 14) Incorporating Public Health Assessments into Climate Change Action

# Duty to Protect Public Health from Climate Change Impacts

- DeShaney v. Winnebago County Dep't of Social Services (US, 1989)
- Juliana v. United States (9th Cir., pending)
- Local Governments v. Fossil Fuel Companies (cases filed in CA, CO, MD, NY, RI, WA)



# Cross-Cutting Issues: Government Speech & Compelled Disclosures

*To what extent can governments respond to the public health impacts of climate change by acquiring, using, disseminating, and/or controlling information in a manner intended to influence educate consumers and the public or else to shape public policy?*

Key cases on compelled speech:

- Central Hudson Gas & Elec. Corp. v. Pub. Service Comm'n (US 1980)
- Zauderer v. Office of Disciplinary Counsel (US 1985)

# Cross-Cutting Issues: The Built Environment

- Adaptation in response to climate impacts mediated by the built environment
- Legal liability for failure to adapt

# Incorporating Public Health Assessments into Climate Adaptation

Examples of Public Health Considerations for Projects that May Mitigate or Exacerbate Risks Associated with Climate Change

Project	Relevant Climate Impacts	Public Health Considerations
Seawall	<ul style="list-style-type: none"> <li>• Sea level rise</li> <li>• More severe storms</li> </ul>	<ul style="list-style-type: none"> <li>• Reduced risk of death or harm caused by flooding and inundation</li> <li>• Improved psychological health (due to risk reduction)</li> <li>• Possible direct and indirect harms to adjacent properties or communities if built</li> </ul>
Coastal wetlands restoration	<ul style="list-style-type: none"> <li>• Sea level rise</li> <li>• More severe storms</li> <li>• Rising temperatures</li> </ul>	<ul style="list-style-type: none"> <li>• Reduced risk of death or harm caused by flooding and inundation</li> <li>• Improved psychological health</li> <li>• Improved water quality</li> <li>• Possible alleviation of urban heat island effect (if located in urban area)</li> <li>• Reduction in vector-borne diseases (by providing habitat for predators of mosquitoes)</li> </ul>
Floodplains development	<ul style="list-style-type: none"> <li>• Sea level rise</li> <li>• More severe storms</li> <li>• Changing precipitation patterns</li> <li>• Rising temperatures</li> </ul>	<ul style="list-style-type: none"> <li>• Health risks associated with increased exposure to storms, flooding, erosion, and inundation</li> <li>• Possible reduction in capacity of natural habitat to act as storm buffer</li> <li>• Possible compounding of heat effects from urban development and climate change</li> <li>• Possible compounding of risk of saltwater intrusion into groundwater resources due to increased water consumption</li> </ul>
Managed retreat from vulnerable areas	<ul style="list-style-type: none"> <li>• Sea level rise</li> <li>• More severe storms</li> <li>• Inland flooding</li> </ul>	<ul style="list-style-type: none"> <li>• Reduced risk of death or harm caused by flooding and inundation</li> <li>• Possible psychological and physical health harms caused by relocation of people and communities</li> </ul>

# Legal Frameworks Supporting Health Impact Assessment (HIA)

## State Laws Requiring or Supporting HIA

State	Summary of HIA Law
<b>California</b>	Executive Order S-04-10 (2010) called for the establishment of a Health in All Policies (HiAP) Task Force to identify priority programs, policies, and strategies to improve the health of Californians while also meeting other social and environmental goals within the state. The HiAP Task Force has generated and contributed to a number of guidebooks and collaborative public health programs, including a 2013 guide for state and local governments on how to incorporate health considerations into policy and planning decisions.
<b>Massachusetts</b>	S.B. 2087 (2009) requires HIAs to “determine the effect of transportation projects on public health and vulnerable populations.”
<b>Vermont</b>	H. 202 (2011), enacted as Act 48, requires the Department of Health to recommend a plan to implement a “public health impact assessment process” to evaluate the health effects of local, municipal, and state policy and planning decisions.
<b>Washington</b>	<p>S.B. 6099 (2007) required an HIA to examine the impact of a bridge replacement project on “air quality, carbon emissions, and other public health issues.”</p> <p>Wash. Rev. Code 43.20.270 /43.20.285 (2006) calls for the creation of an interagency council on health disparities and authorizes health impact reviews as one mechanism to address those disparities.</p>

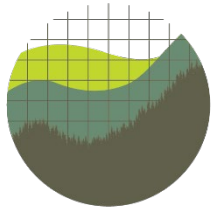
# Key Challenges for Public Health Assessment in Climate Action

- A “legislative” gap – the absence of laws requiring impact assessment for federal and state legislative proposals.
- Lack of specific requirements/guidance for evaluating public health outcomes under existing impact assessment regimes, which can result in cursory analysis of public health issues.
- Uncertainty/lack of experience with estimating and accounting for climate change-related public health outcomes.

# Foundational Issues for Future Action on Public Health and Climate Change

- Policy silos
- Governance gaps
- Institutional capacity
- Information costs and under-informed decisions





Institute *for*  
**Policy Integrity**  
NEW YORK UNIVERSITY SCHOOL OF LAW



**Columbia Law School**

---

**SABIN CENTER FOR CLIMATE CHANGE LAW**

**Justin Gundlach**

[justin.gundlach@nyu.edu](mailto:justin.gundlach@nyu.edu)

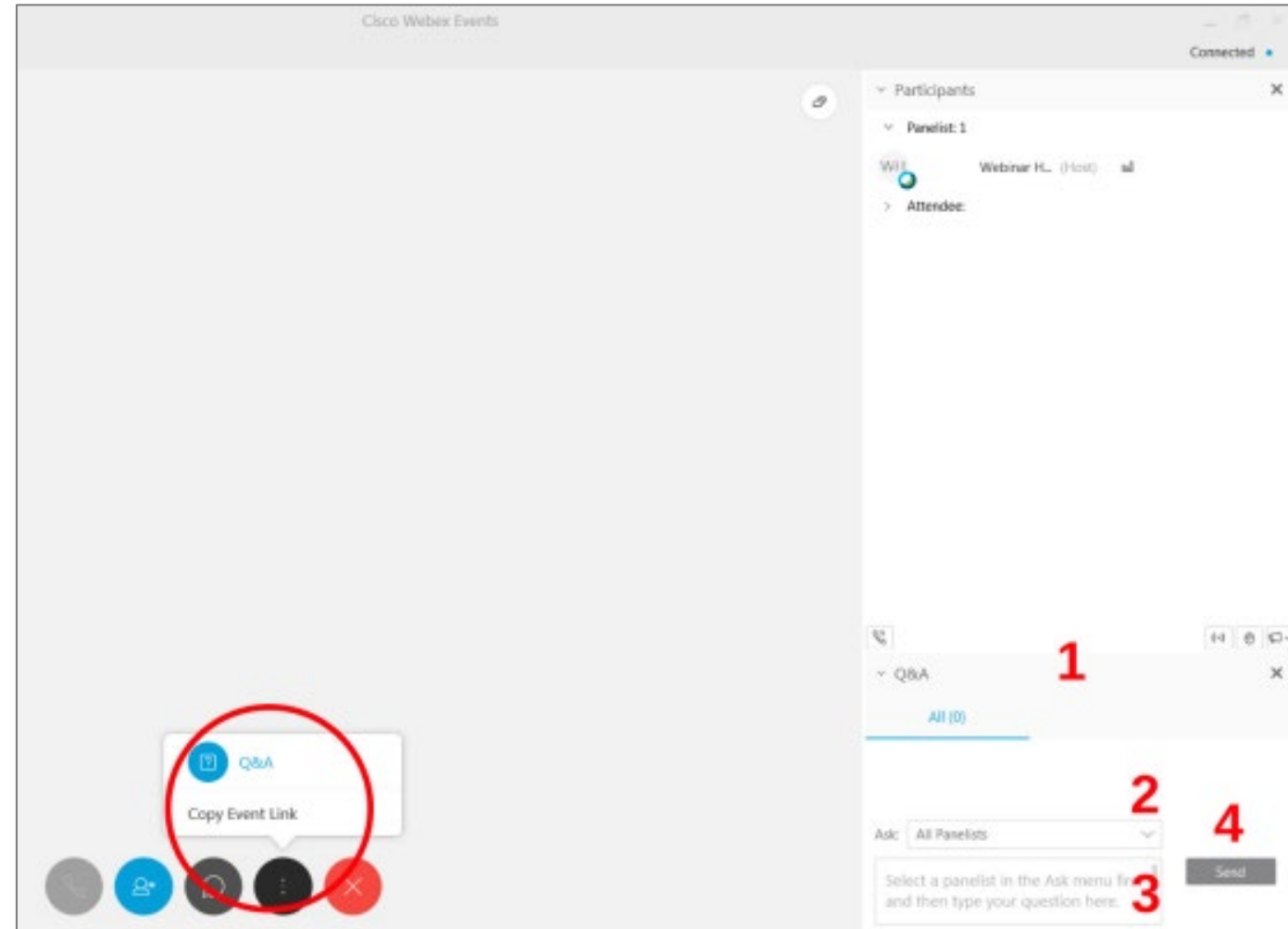
**Mike Burger**

[mburger@law.columbia.edu](mailto:mburger@law.columbia.edu)

**THANK YOU**

## How to Use WebEx Q & A

1. Open the Q&A panel
2. Select “All Panelists”
3. Type your question
4. Click “Send”



## Thank you for attending

For a recording of this webinar and information about future webinars, please visit [networkforphl.org/webinars](https://networkforphl.org/webinars)



### 2019 Public Health Law Summit

Data Sharing to Improve Community Health  
October 3-4 | Plymouth, MI



*You may qualify for CLE credit. All webinar attendees will receive an email from ASLME, an approved provider of continuing legal education credits, with information on applying for CLE credit for this webinar.*