

green
town

Environmental and Economic Drivers of Health Disparities: The Influence of Climate Change

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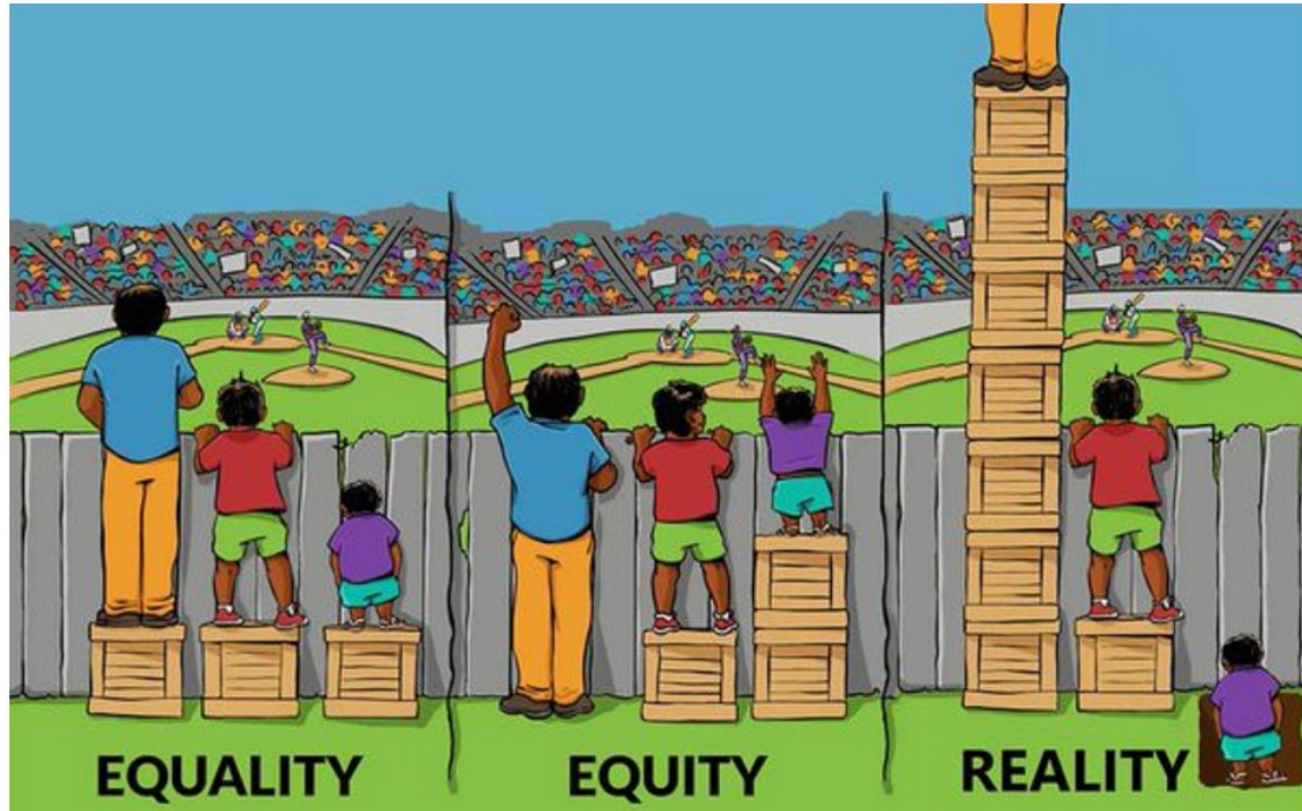
Katrina Thompson, Village of Broadview



Oak Park Vulnerability Assessment: Existing climate conditions & social vulnerability



Climate & Equity



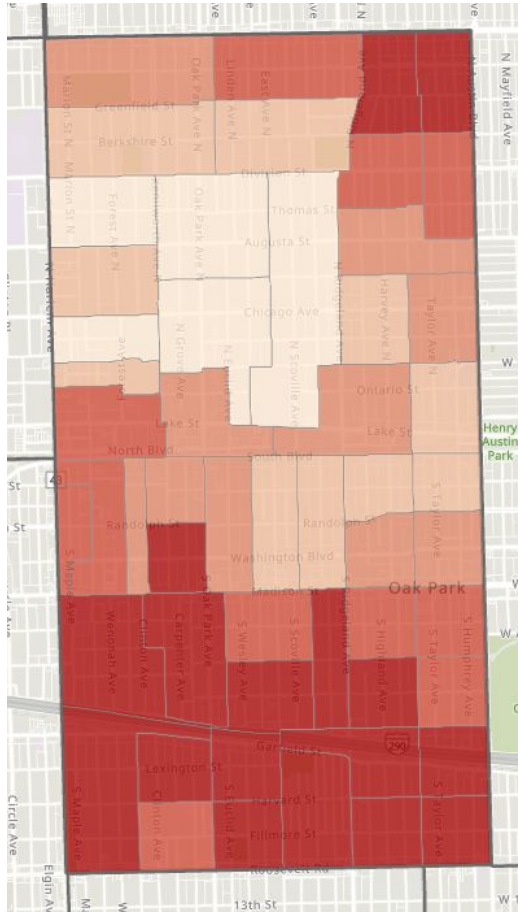
Climate change affects everyone...

But not everyone is affected equally.

This has been historically true.

It remains true today.

Oak Park Climate Vulnerability Index



The areas shown as darkest red have a higher combined climate vulnerability: Northeast & South Oak Park

Climate risk datasets:

- Land Surface Temperature
- Tree Canopy Cover
- Impervious Surface Cover
- Urban Flood Vulnerability
- Annual Average Daily Traffic
- PM2.5 by Census Tract
- Ozone by Census Tract

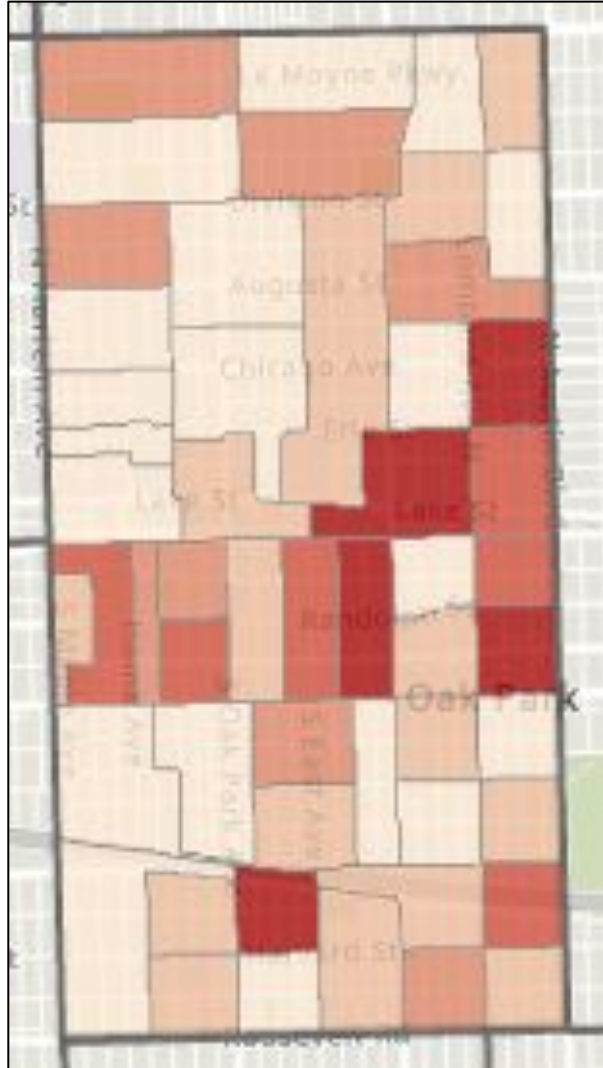
Oak Park Social Vulnerability Index



The areas shown as darkest red have a higher combined social vulnerability.

National research demonstrates that some socio-economic factors make it more difficult to prepare for and adapt to the negative impacts of climate change.

Oak Park Social Vulnerability Index



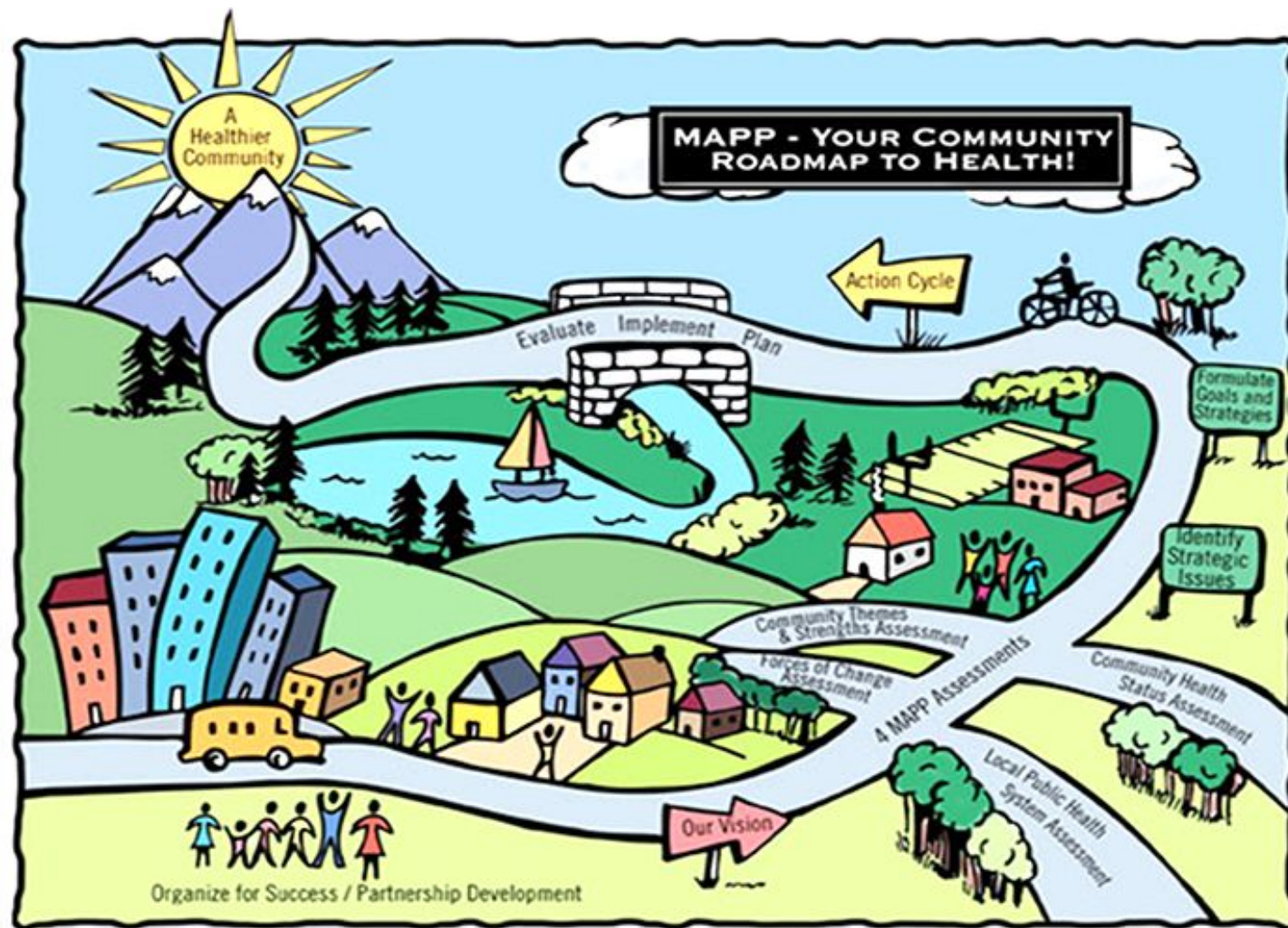
- % Households below Poverty Level
- % Individuals 65+
- % Households with Children Under 5
- % Households with a Disability
- % Building Age of Renter Occupied Housing <1940
- % Non-White (Including all Hispanic or Latino regardless of race)
- % in Front-line Occupations
- % Lacking Personal Vehicle Access
- % Single Parent Households
- % Experiencing Rent Burden
- % Experiencing Homeowner Cost Burden
- % of Households Receiving Food Assistance
- % Unemployed
- % Limited English-speaking Households

High-Impact Actions for Climate Justice



- Conduct an Equity Impact Analysis, user-centered design, and authentic engagement for all policies & programs.
- Collaborate with mobility-impacted groups on inclusive community surveys to identify needed walk/roll/transit improvements.
- Connect community members to resources to grow food & access affordable healthy food.
- Collaborate with high-risk populations to identify improvements to disaster response, evacuation procedures, and shelters.
- Collaborate with business to reduce/eliminate health and climate hazards.

Community Health Needs Assessment Process (IPLAN)



IPLAN Priority Areas

- Natural and Built Environment
- Mental Health and Substance Use
- Gun Safety
- Access to Care



IPLAN Priority Area: Natural and Built Environment

GOAL #1: Ensure a safe and hazard-free natural and built environment		
OUTCOMES	STRATEGIES	INDICATORS
Reduction in environmental hazards	<ul style="list-style-type: none"> • Study local environmental hazards (e.g., 290, factories) adversely affecting health • Partner on policy solutions to address identified hazards • Encourage building electric car charging stations (including at multiunit buildings) • Work with schools to improve air quality through ventilation and filtration • Work with senior housing, nursing homes, and congregate living settings to improve air quality through ventilation and filtration • Promote access to safe housing (e.g., lead-free) • Reduce use of pesticides in the community through education, policy solutions, and community incentives 	<ul style="list-style-type: none"> • Decrease percent of poor air quality days over baseline • Increase number of schools and congregate living settings participating in air quality efforts • Increase community uptake of incentives for pesticide-free gardening
Enhanced natural spaces in the community	<ul style="list-style-type: none"> • Support efforts to establish green infrastructure such as rain gardens and use of native plants that reduce flooding risk • Increase tree canopy cover and urban forestry in high vulnerability areas in coordination with Climate Ready Oak Park plan • Pilot publicly accessible community gardens and expand based on success • Identify underutilized areas for green and natural spaces, such as along 290 or on rooftops • Create green and natural spaces accessible to people with disabilities, seniors, and others 	<ul style="list-style-type: none"> • Increase percent tree canopy in high- vulnerability areas identified by Climate Ready Oak Park • Increase total green space consistent with Climate Ready Oak Park's green space access goal
Increased access to healthy and sustainable food production, practices, and usage	<ul style="list-style-type: none"> • Educate around growing food sustainably at home • Preserve and expand the LINK program at farmers market for increased affordability • Educate community members about farmers market and about cooking with produce • Connect neighborhoods/underserved groups to farmers market, farm shares, etc. • Explore avenues to partner with grocery stores to increase food access for vulnerable populations 	<ul style="list-style-type: none"> • Twice-monthly educational programming demonstrations or activities at the Farmers Market during the market season. • Decrease percent of adults who ate fruits and vegetables less than once per day according to BRFSS

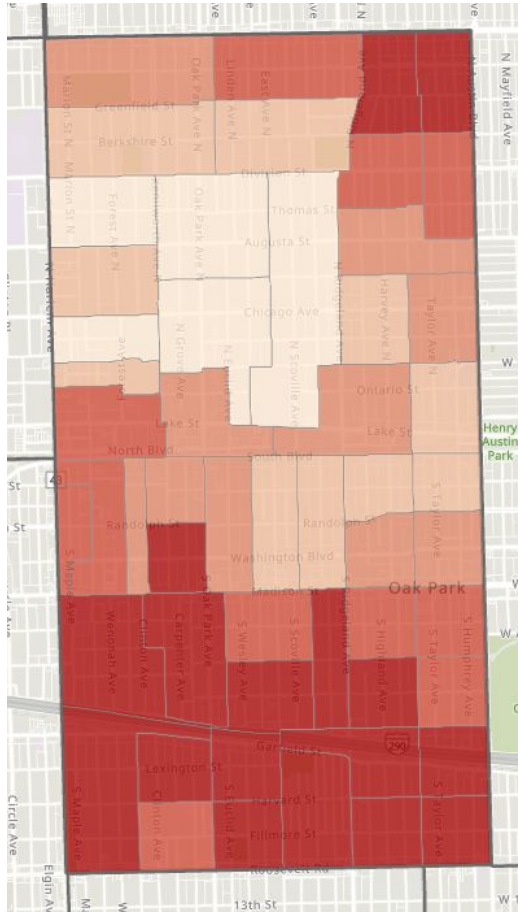


IPLAN Priority Area: Natural and Built Environment

GOAL #2: Create a safe environment for walking, biking, and physical activity		
OUTCOMES	STRATEGIES	INDICATORS
<p>Built environment conducive for walking, biking, and rolling</p>	<ul style="list-style-type: none"> • Evaluate pedestrian intersections to gauge user friendliness and safety, and identify opportunities for improvement in traffic calming measures, pedestrian signals, curb cuts, bus stop accessibility, and more • Add physical structures such as barrier-protected bike lanes and other traffic-calming measures that protect cyclists, pedestrians, and others • Introduce greenways and linear parks to connect neighborhoods to key points around the community • Increased bike parking and other bike infrastructure (e.g., covered bike parking, bike parking at schools) • Connect bike lanes with public transit • Revisit bike sharing, scooter sharing, e-bike, and other ride-sharing options, including those for people with disabilities • Develop plans for downtown sidewalk snow removal and salting to promote safer winter walking for seniors, people with disabilities, parents with strollers, and others 	<ul style="list-style-type: none"> • Increase number of miles/blocks of protected bike lanes and greenways • Increase number of bike parking spaces at schools • Increase number of bike parking spaces in commercial districts
<p>Increased community engagement in walking, biking, rolling, and other outdoors activities</p>	<ul style="list-style-type: none"> • Educate bikers and walkers about safety practices • Educate drivers on sharing the road • Educate seniors on fall prevention • Introduce “walking school bus” and other programs that encourage physical activity for children • Expand bike helmet awareness, education, and requirements (including expansion of existing laws/requirements) • Engage schools around bike access, parking, use, and safety • Utilize air quality index as a way to promote outdoor activities by having public facing air quality monitors • Work with schools on tracking childhood physical activity and health indicators 	<ul style="list-style-type: none"> • Increase number of walking school buses over baseline • Increase percent of youth who were physically active for at least 60 minutes per day on the last seven days according to YRBS



Oak Park Climate Vulnerability Index



We are one Village.
We value equity.
We will do the work.

Green Town C4 Conference Environmental Justice and Climate Change 6/22/2023





Efforts at UIC to address environmental health, food justice, and climate change

Kristen Malecki, PhD

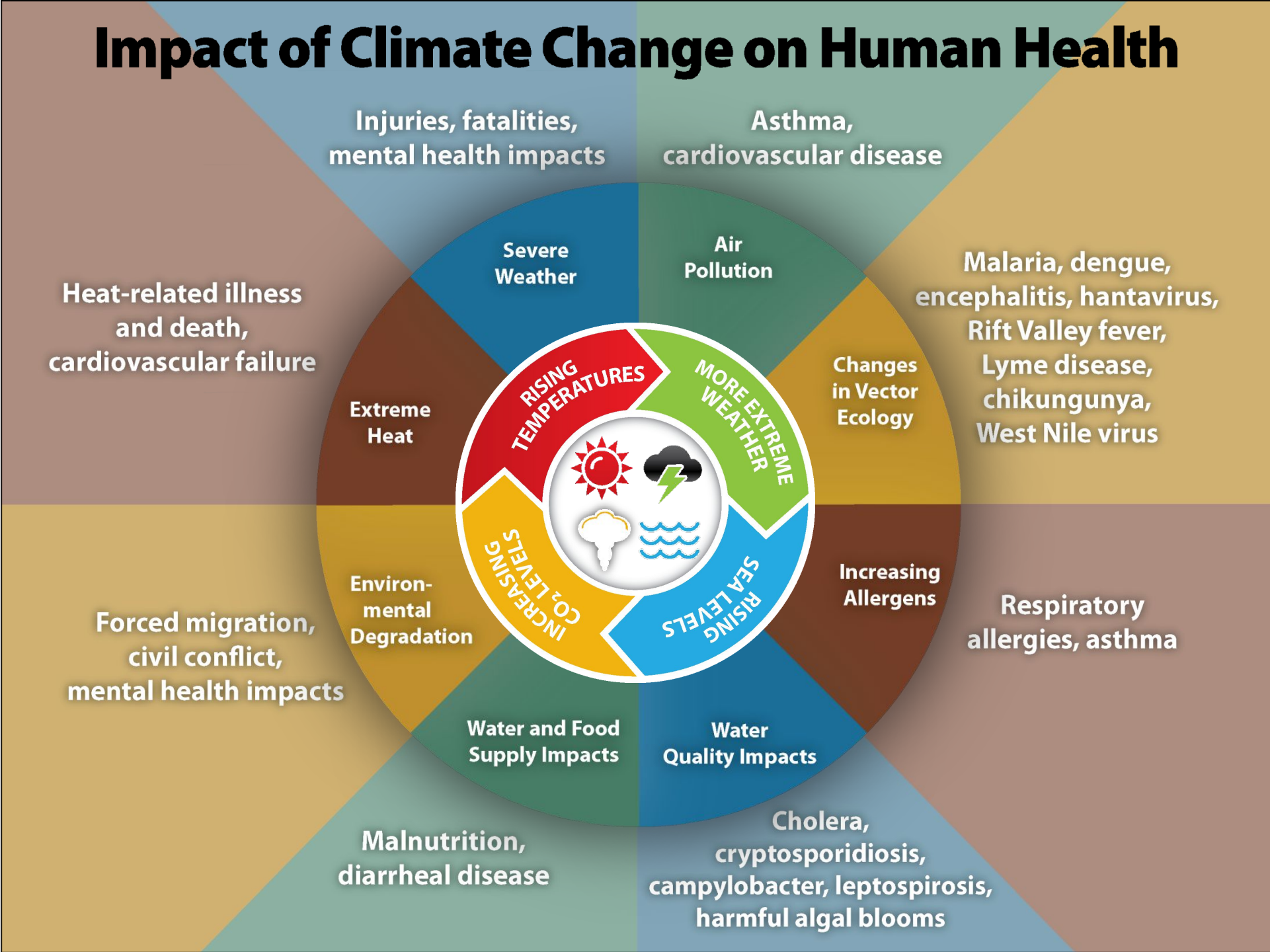
Saria Lofton, RN, PhD

Elena Grossman, MPH



UNIVERSITY OF
ILLINOIS CHICAGO

Impact of Climate Change on Human Health



Environmental Justice and Climate Health Equity

Environmental justice (EJ) is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation and enforcement of environmental laws, regulations and policies.

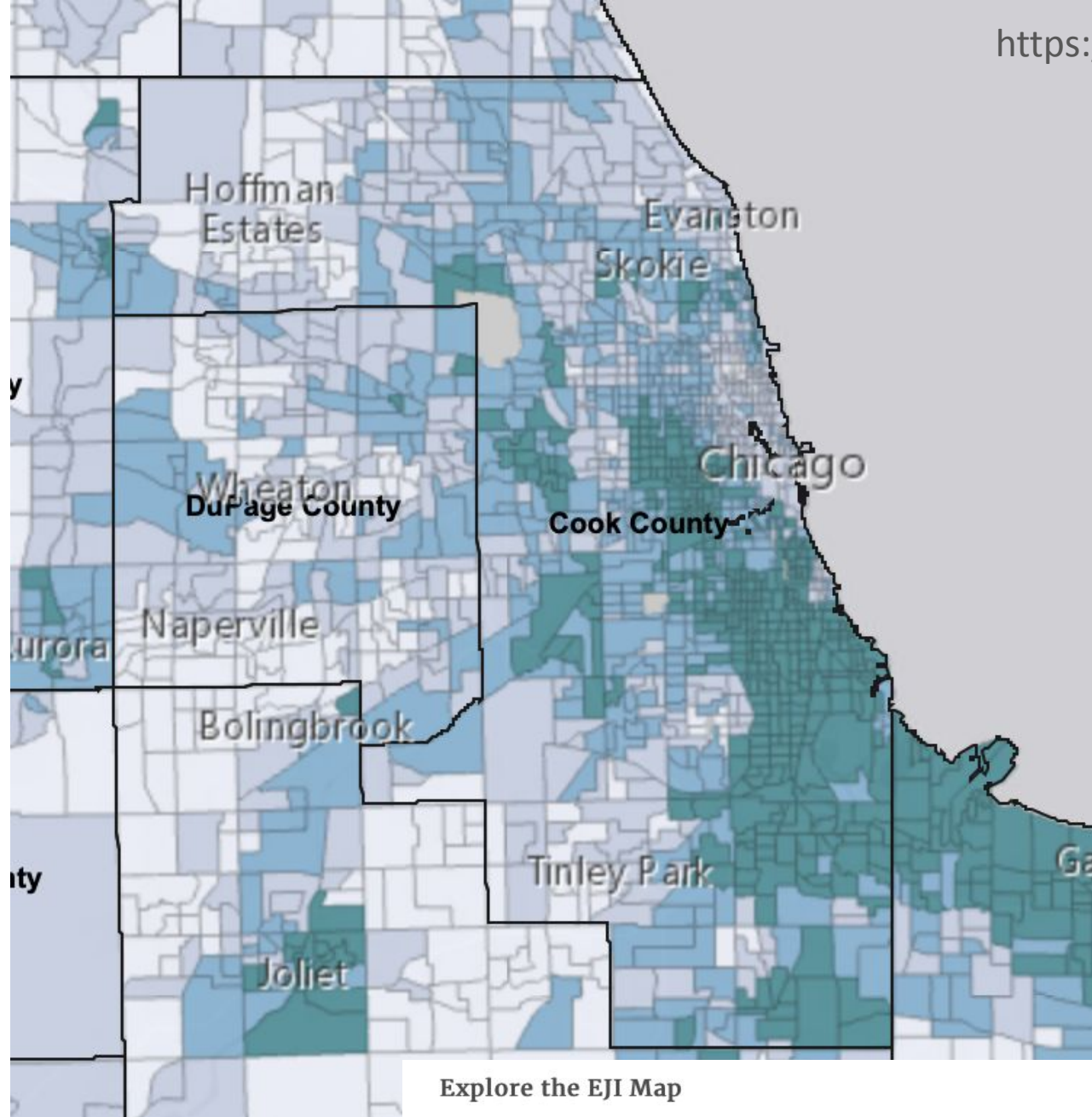
Fair treatment means no group of people should bear a disproportionate share of the negative environmental consequences resulting from industrial, governmental and commercial operations or policies.

Meaningful involvement means:

- People have an opportunity to participate in decisions about activities that may affect their environment and/or health;
- The public's contribution can influence the regulatory agency's decision;
- Community concerns will be considered in the decision making process; and
- Decision makers will seek out and facilitate the involvement of those potentially affected.



President Clinton signing the EJ Executive Order in 1994.



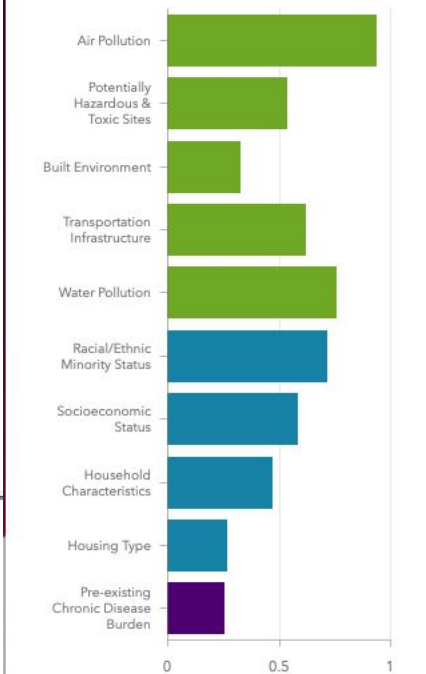
Environmental Justice Index 2022

EJI Ranking (Quartiles):

RPL_EJI

- Low
- Low to Moderate
- Moderate to High
- High
- No Data

Percentile Ranks of Domains in the Environmental Justice Index (average rank in current map extent or state/county selected)



Note: If "No Data" check extent or remove state/county filter

Explore the EJI Map

The **Environmental Justice Index (EJI)** scores census tracts using a percentile ranking which represents the proportion of tracts that experience cumulative impacts of environmental burden and injustice equal to or lower than a tract of interest. For example, an EJI ranking of 0.85 signifies that 85% of tracts in the nation likely experience less severe cumulative impacts on health and well-being than the tract of interest, and that 15% or tracts in the nation likely experience more severe cumulative impacts from environmental burden. Click [here](#) for more information on the EJI background methods.

Please note: Territory data (except Puerto Rico) is not available as comparable to the US. It is only comparable to the territory itself by using the 'Compare to State' functionality. Likewise, some of the indicators may not be available for territories.



Compare to US Compare to State

Environmental Justice Indexes

Particulate Matter 2.5

Ozone

Diesel Particulate Matter

Air Toxics Cancer Risk

Air Toxics Respiratory HI

Traffic Proximity

Lead Paint

Superfund Proximity

RMP Facility Proximity

Hazardous Waste Proximity

Underground Storage Tanks

Wastewater Discharge

Supplemental Indexes

Pollution and Sources

Socioeconomic Indicators

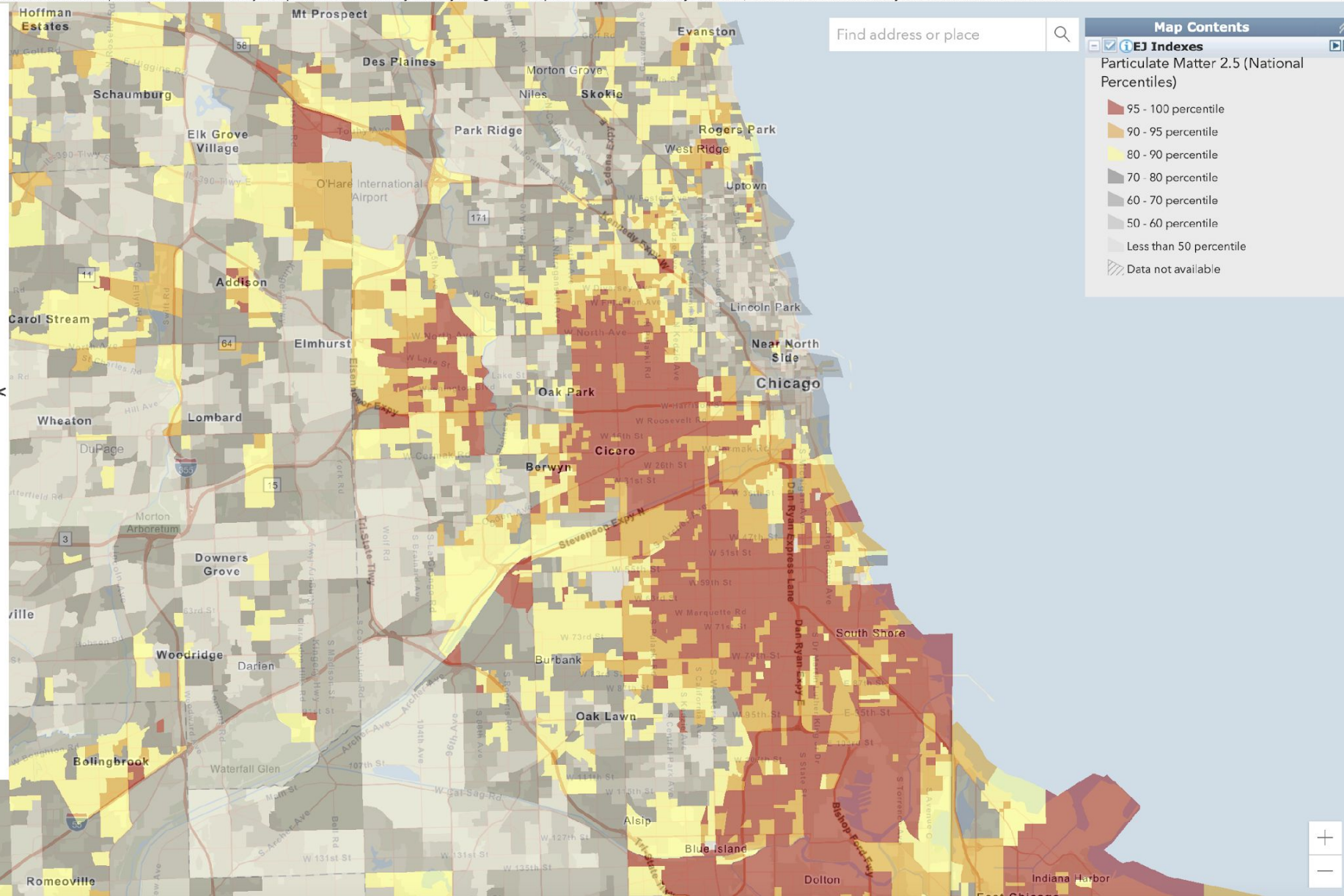
Health Disparities

Climate Change Data

Critical Service Gaps

Additional Demographics

Threshold Map



Find address or place

Map Contents

EJ Indexes

Particulate Matter 2.5 (National Percentiles)

- 95 - 100 percentile
- 90 - 95 percentile
- 80 - 90 percentile
- 70 - 80 percentile
- 60 - 70 percentile
- 50 - 60 percentile
- Less than 50 percentile
- Data not available



Please note: Territory data (except Puerto Rico) is not available as comparable to the US. It is only comparable to the territory itself by using the 'Compare to State' functionality. Likewise, some of the indicators may not be available for territories.



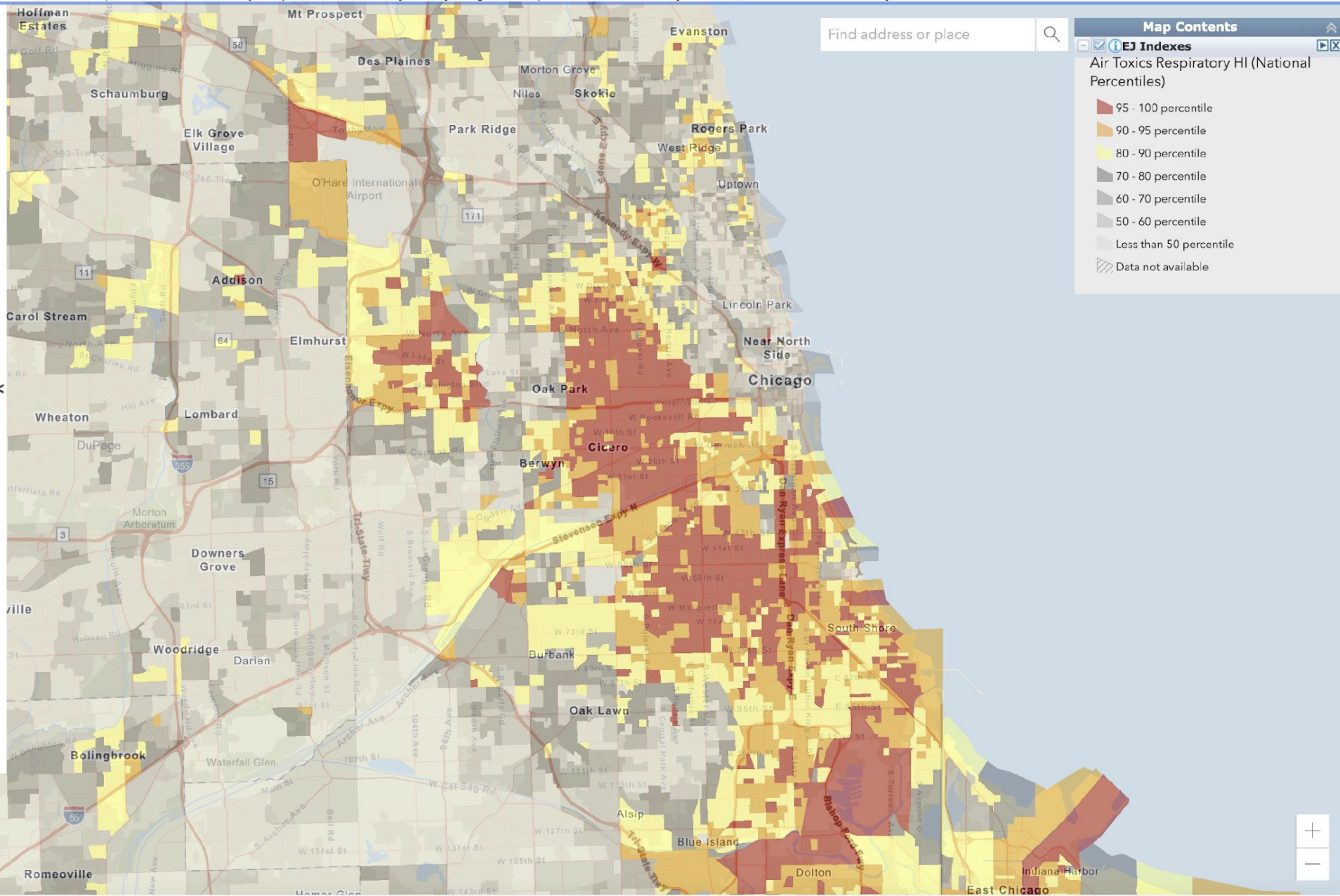
Compare to US Compare to State

Environmental Justice Indexes

- Particulate Matter 2.5
- Ozone
- Diesel Particulate Matter
- Air Toxics Cancer Risk
- Air Toxics Respiratory HI**
- Traffic Proximity
- Lead Paint
- Superfund Proximity
- RMP Facility Proximity
- Hazardous Waste Proximity
- Underground Storage Tanks
- Wastewater Discharge

Supplemental Indexes

- Pollution and Sources
- Socioeconomic Indicators
- Health Disparities
- Climate Change Data
- Critical Service Gaps
- Additional Demographics
- Threshold Map



Find address or place

Map Contents

- EJ Indexes
- Air Toxics Respiratory HI (National Percentiles)
 - 95 - 100 percentile
 - 90 - 95 percentile
 - 80 - 90 percentile
 - 70 - 80 percentile
 - 60 - 70 percentile
 - 50 - 60 percentile
 - Less than 50 percentile
 - Data not available

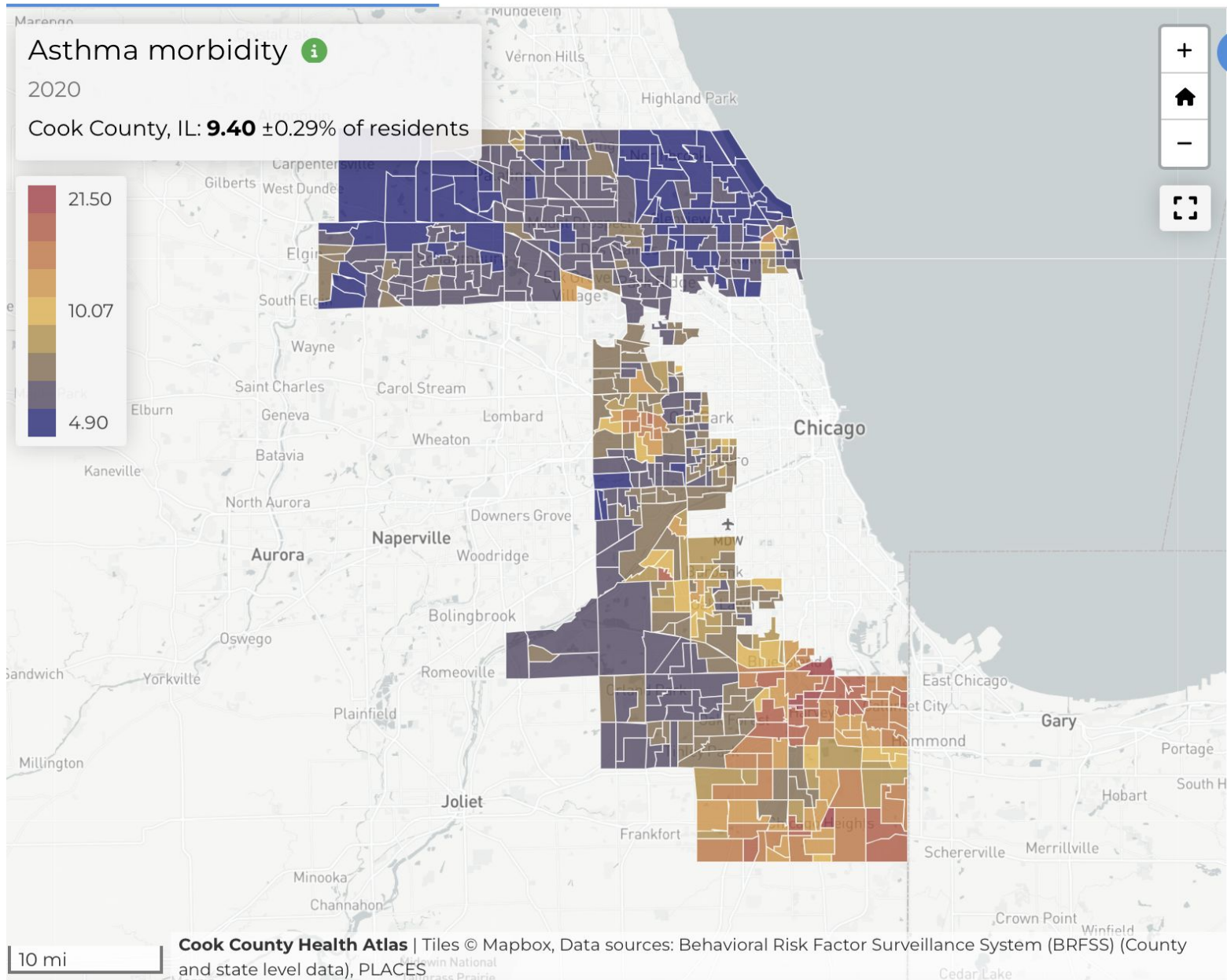


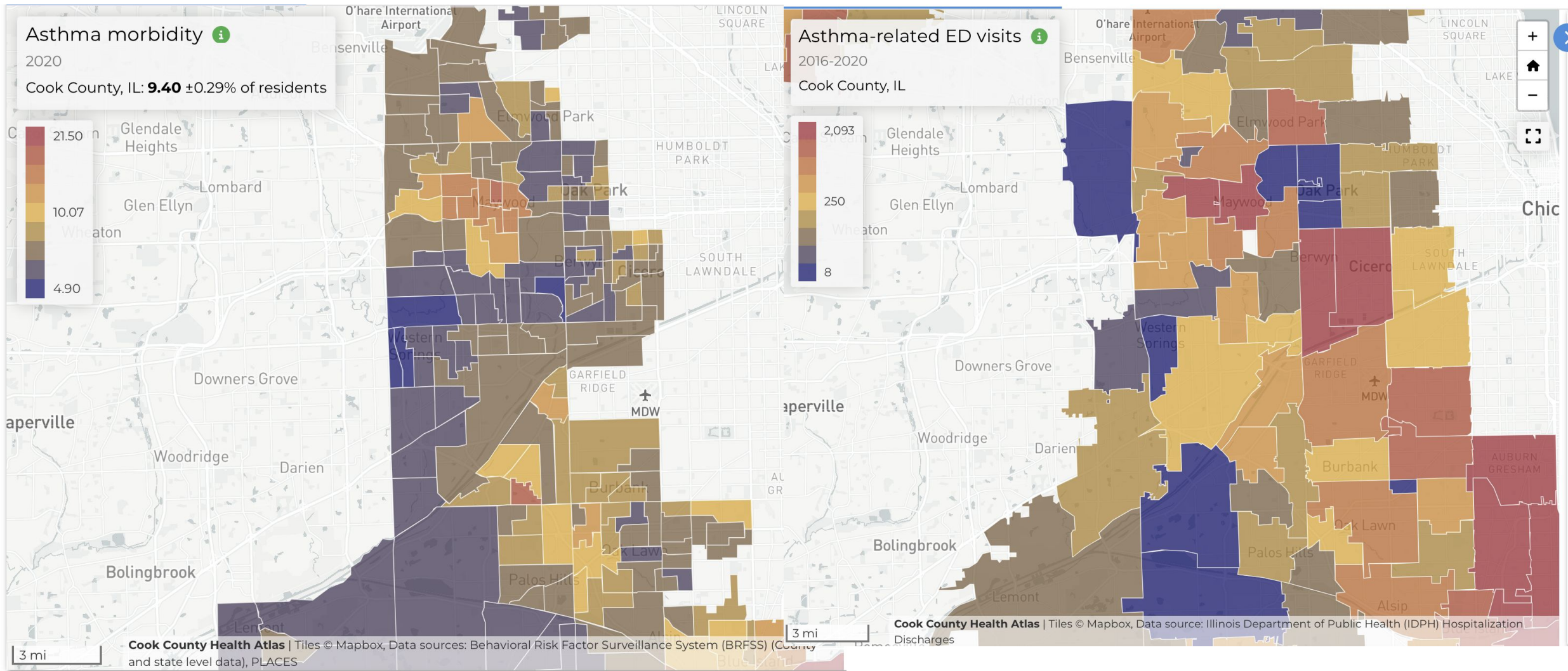
Cook County Health Data – Asthma, BRFSS

MAP

TRENDS

RANK





EPA EJScreen EPA's Environmental Justice Screening and Mapping Tool (Version 2.12)

[EJScreen Website](#) | [Mobile](#) | [Glossary](#) | [Help](#)

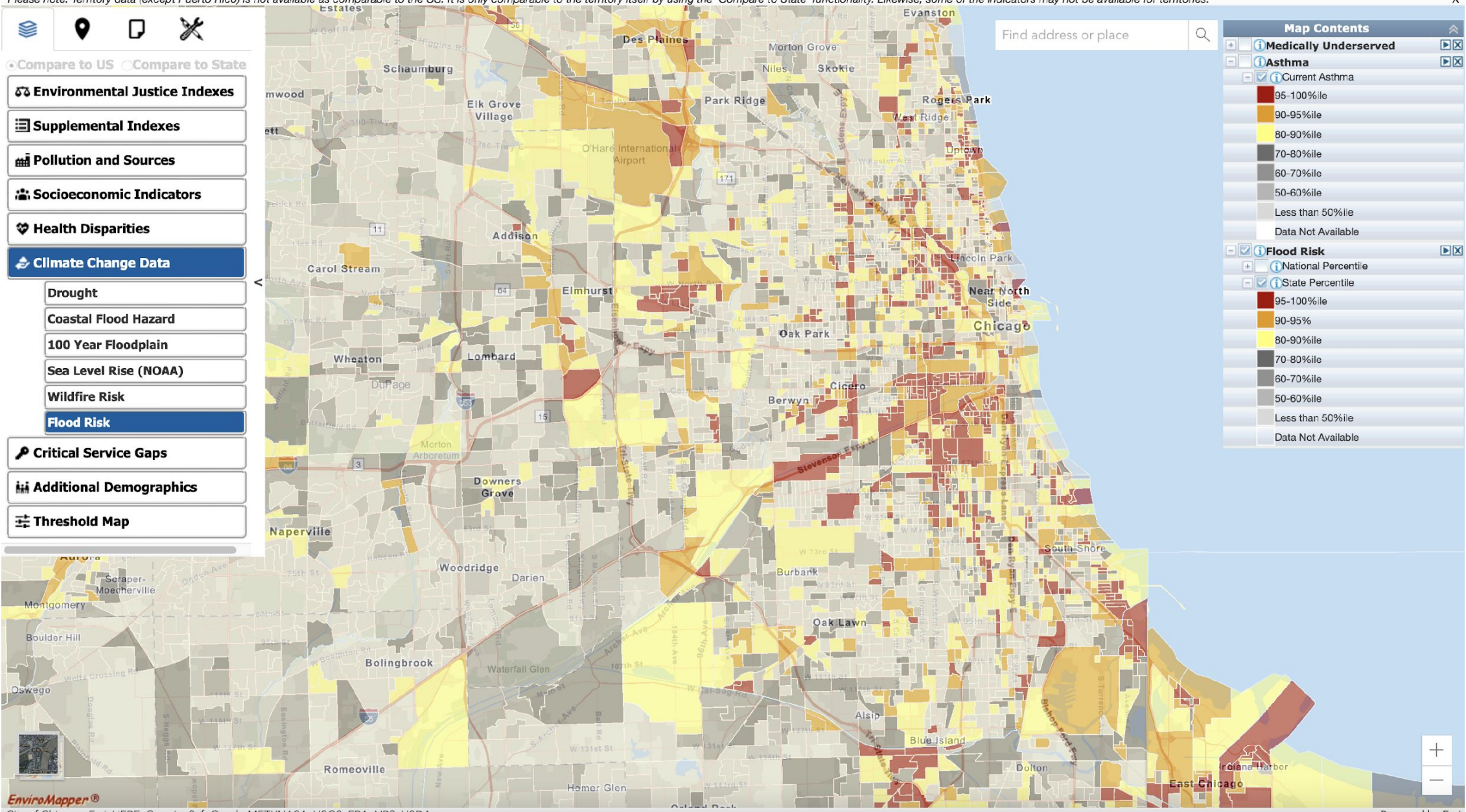
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Compare to US Compare to State

- Environmental Justice Indexes
- Supplemental Indexes
- Pollution and Sources
- Socioeconomic Indicators
- Health Disparities
- Climate Change Data
 - Drought
 - Coastal Flood Hazard
 - 100 Year Floodplain
 - Sea Level Rise (NOAA)
 - Wildfire Risk
 - Flood Risk**
- Critical Service Gaps
- Additional Demographics
- Threshold Map

Find address or place



Map Contents

- Medically Underserved**
- Asthma**
 - Current Asthma
 - 95-100%ile
 - 90-95%ile
 - 80-90%ile
 - 70-80%ile
 - 60-70%ile
 - 50-60%ile
 - Less than 50%ile
 - Data Not Available
- Flood Risk**
 - National Percentile
 - State Percentile
 - 95-100%ile
 - 90-95%
 - 80-90%ile
 - 70-80%ile
 - 60-70%ile
 - 50-60%ile
 - Less than 50%ile
 - Data Not Available



EPA EJScreen EPA's Environmental Justice Screening and Mapping Tool (Version 2.12)

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Compare to US
 Compare to State

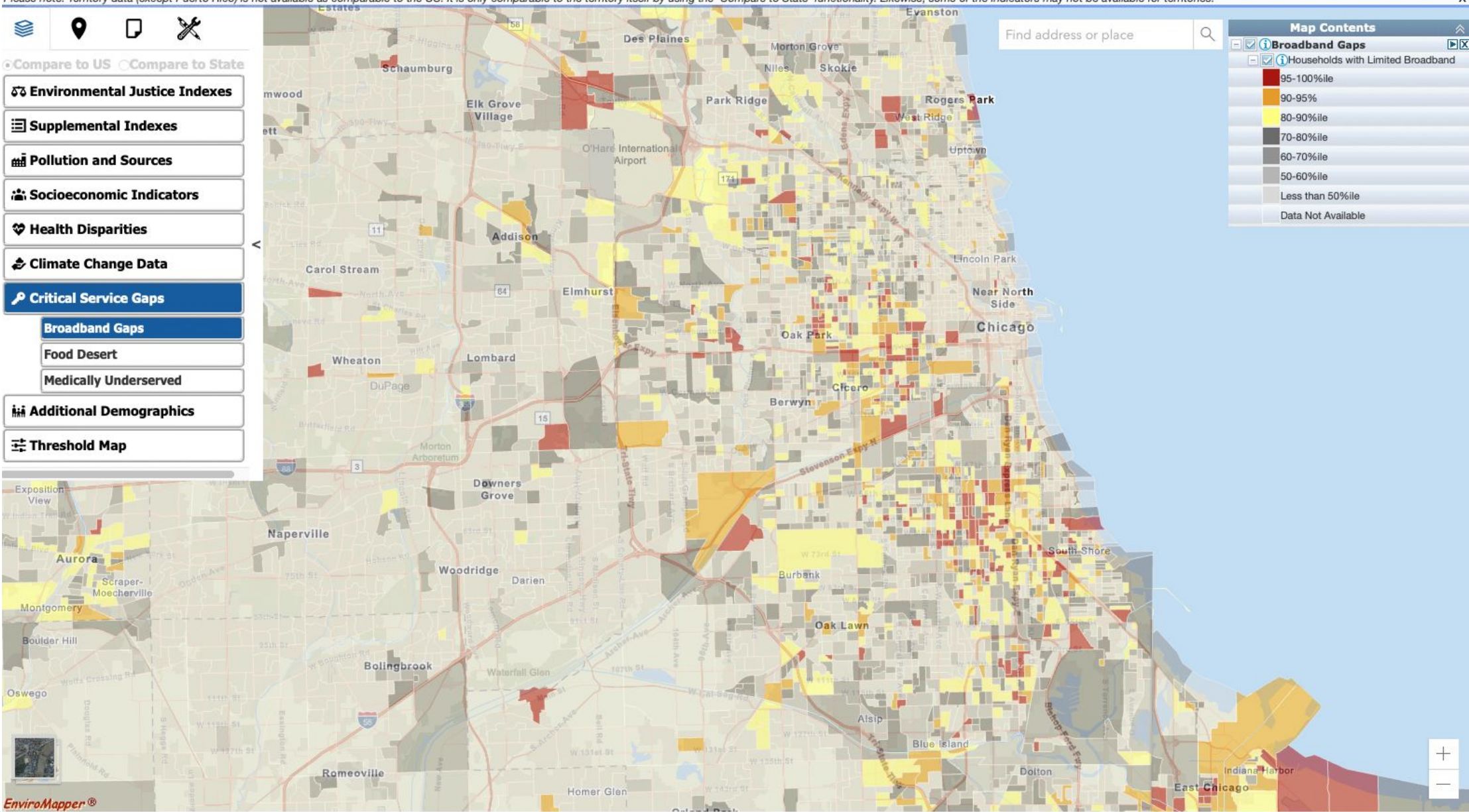
- Environmental Justice Indexes**
- Supplemental Indexes**
- Pollution and Sources**
- Socioeconomic Indicators**
- Health Disparities**
- Climate Change Data**
- Critical Service Gaps**
- Broadband Gaps
- Food Desert
- Medically Underserved
- Additional Demographics**
- Threshold Map**

Find address or place

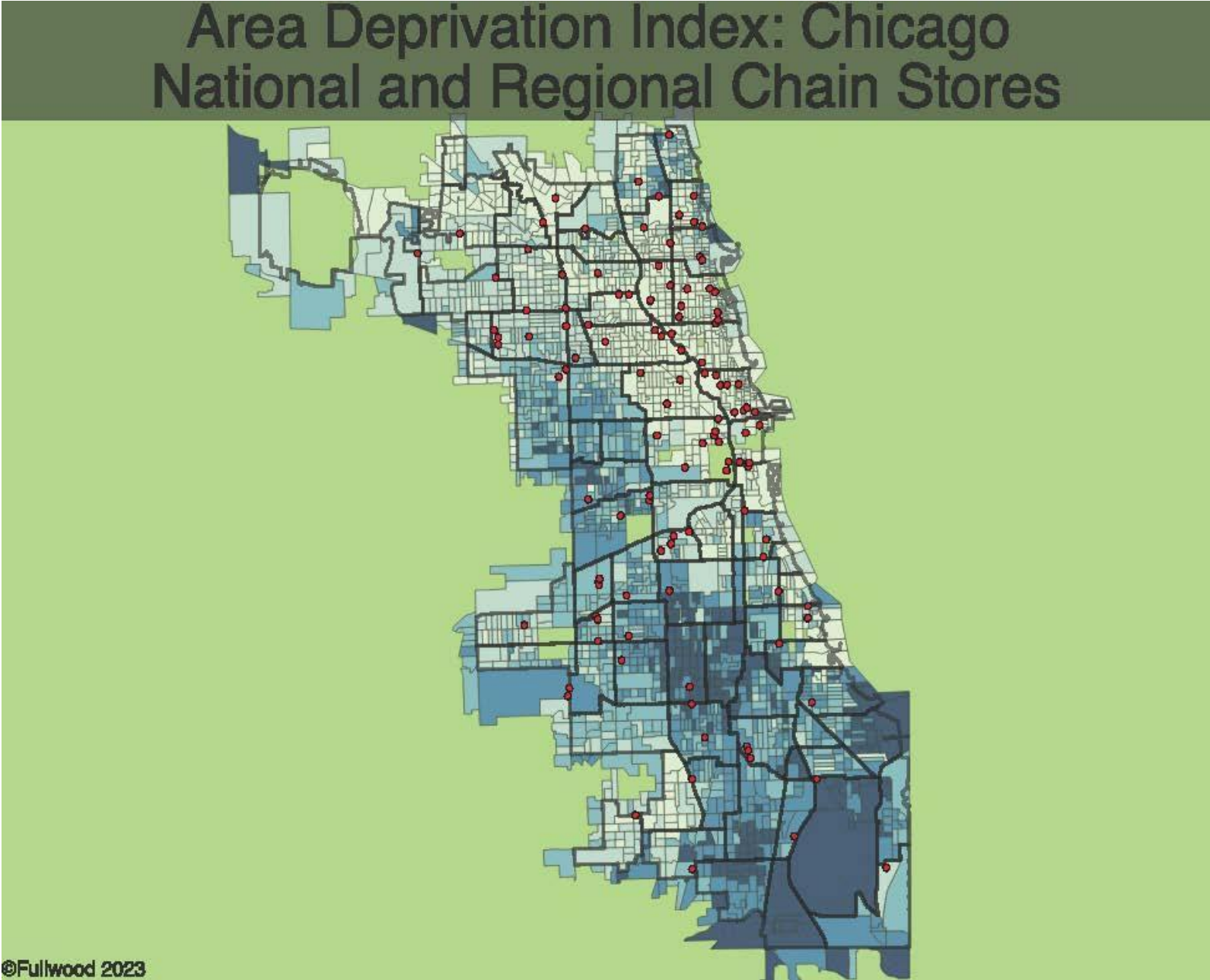
Map Contents

- Broadband Gaps
- Households with Limited Broadband

	95-100%ile
	90-95%
	80-90%ile
	70-80%ile
	60-70%ile
	50-60%ile
	Less than 50%ile
	Data Not Available

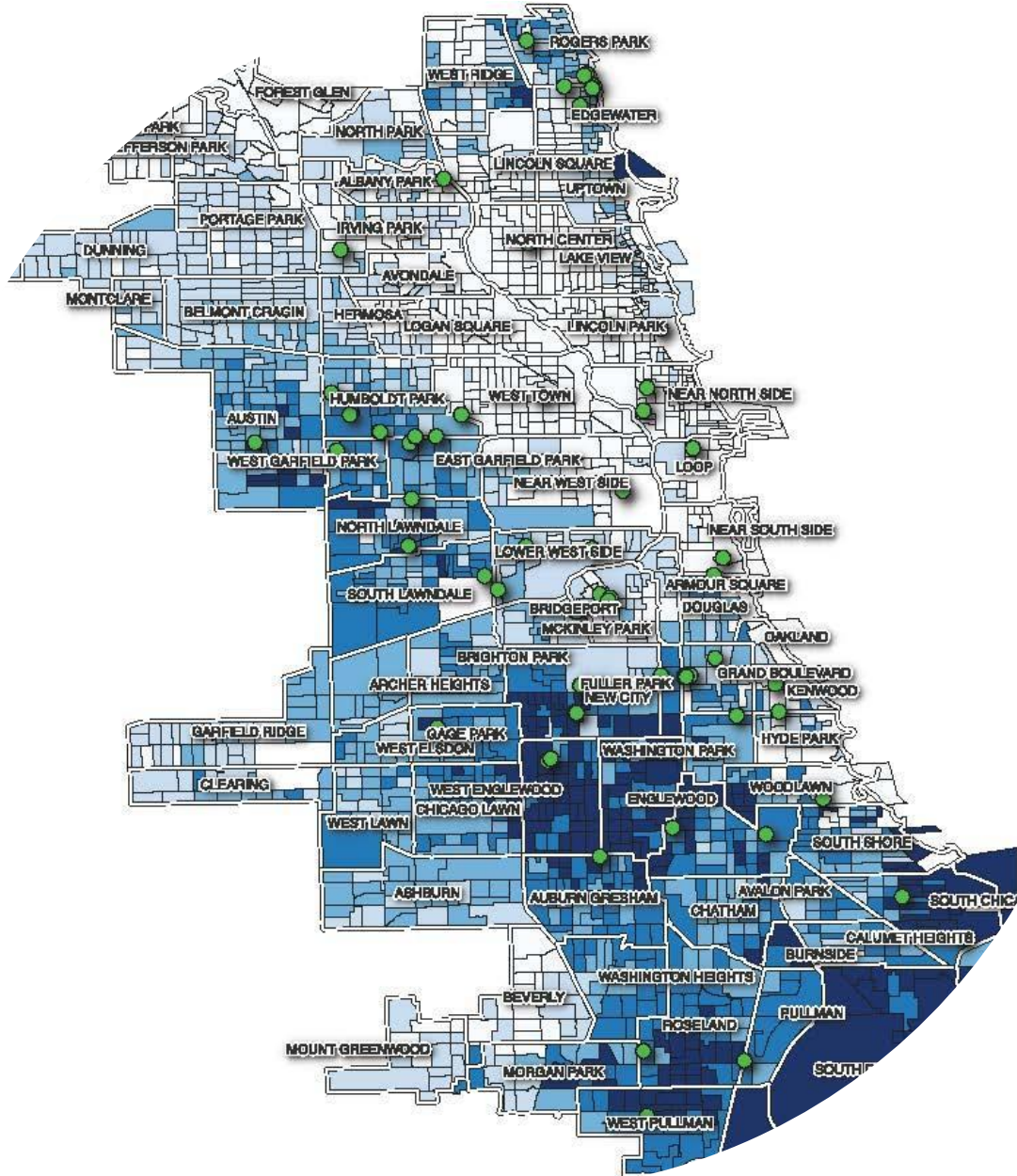


Food security challenges





Potential Solutions and Actions



Food security opportunities



Climate change and health action: Work with local health departments

Kendall County Health Department
 March 1 at 4:03pm · 🌐

Yesterday we collected approximately 30 Deer ticks, the known carriers of Lyme disease. Learn more and how to protect yourself at TickEncounter Resource Center and <http://www.kendallhealth.org/environmental-health/ticks>



👍 Like 💬 Comment ➦ Share

👤 5 Chronological


27 Shares

View 2 more comments

 Jaime Levensitz Murray Hollins Wuu Uhh? Think they would be out ya?

Like Reply 6d

 Cathy Dillon Uh oh it's early. 🙄



Attack
 Smoking
 Treatment
 Health
 Management
 Allergens

Breather's
 Guide

2017
 1st Edition

HOME CALENDAR MESSAGES 64 REPORTS Steve

Sleep:	History of inpatient or outpatient mental health or substance abuse services:
Current and Past Psychotropic Medications:	Date of Most Recent Psychiatric Evaluation (Date/Provider/Results):
Family history of mental illness, developmental disabilities, psychiatric hospitalizations, or suicides:	Is there a history of experiencing any abuse or trauma, including verbal, physical, emotional or sexual (include dates/duration):
FOR MINOR CLIENTS ONLY:	
FOR MINORS: Describe parent/child relationship:	FOR MINORS: Describe how the child relates to family and peers:
FOR MINORS: Describe the method of discipline in the family:	FOR MINORS: Describe the changes you would like to see in your child and family:



RECOVERING
 EMOTIONALLY
 FROM
 DISASTER

ELDER SOCIAL
 SUPPORT GROUP





Climate change and health action: Climate and Health Institute working with municipalities

Year 1

- Select 10 students
 - Undergraduate and Graduate
- Select up to 30 community members
- Deliver 8 trainings on climate change and health
 - Academicians and Practitioners
- Match a pair of students with a municipality/MMC
- Evaluate

Year 2

- 5 pairs of students develop a project with an educational component for a municipality/MMC
 - Ie: ArcGIS StoryMap, heat or flooding maps of most susceptible neighborhoods, develop outreach plans, organize an event
- Disseminate the final project
 - Participating community members assist
- Share final products with cohort
- Evaluate





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