

Addressing Climate Injustice: Centering People in the Solutions

Dr. Jalonne L. White-Newsome, CEO/Founder
Empowering a Green Environment and Economy, LLC

Climate Solutions Council Meeting - August 24, 2021



► **CRIME ON THE RISE:** Police doubt that Citibank and LaSalle were robbed by the same man.

BY GENEVIEVE MARSHALL
The Daily Northwestern

A composite sketch of the man who robbed the LaSalle Talman Bank Friday should be ready by the end of the week, police said.

The robber got away with close to \$3,000, although the actual amount has not been released, said Lt. Charles Wernick of the Evanston Police Department.

LaSalle Talman Bank, 1336 Chicago Ave., was robbed around noon after a man approached a teller and quietly asked her to give him all the large bills from her drawer, Wernick said.

The man said he had a gun but never showed it, he said.

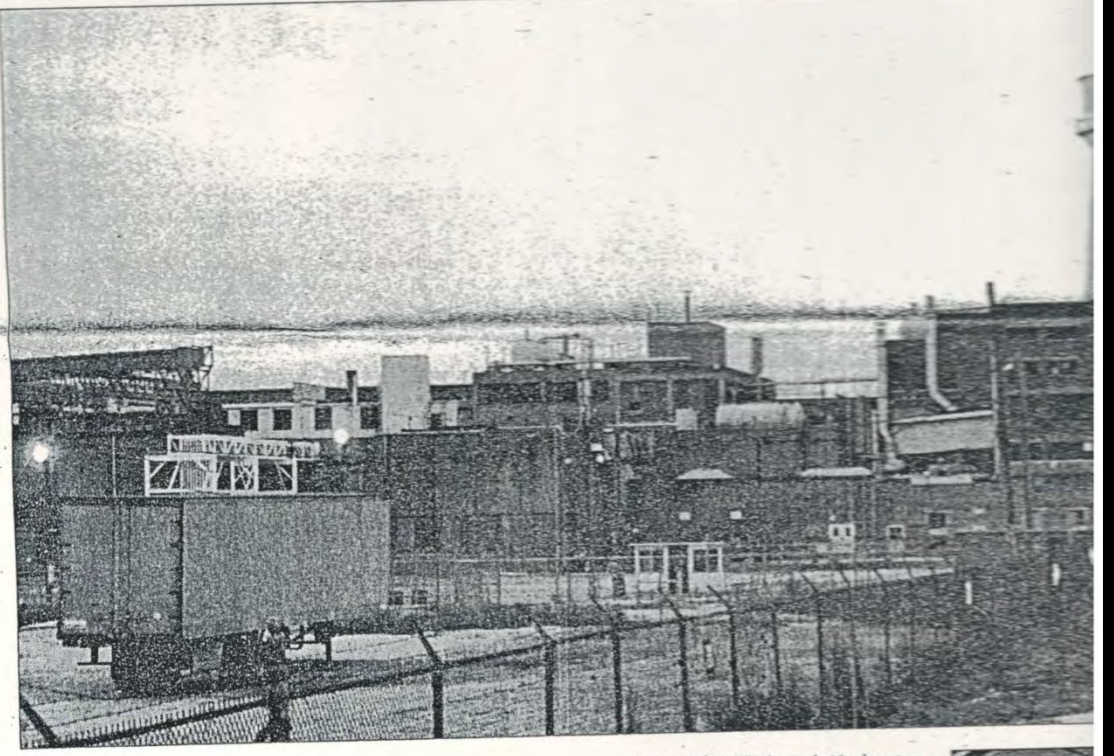
The teller seemed preoccupied, witnesses told police, so another teller asked the suspect if he needed any help, Wernick said. The suspect said he wanted the first teller to help him.

The suspect then told the teller again to give him all her large bills or risk being shot, Wernick said.

The man gave him what they thought was a blot. There is a LaSalle Bank Citibank, I

ENVIRONMENTAL CONTROVERSY

► **TOXIC AVENGERS:**
Residents of Robbins, Ill. (just south of Chicago), battle industrial dumping, which they say is more severe in low-income and minority neighborhoods like theirs.



BY KARYN KAMINSKI/The Daily Northwestern

THE ACCUSED: Factories like the Sherwin Williams paint plant and the neighboring PMC plant have been targeted by activist groups like People For Community Recovery.

Finding Environmental Justice

BY JALONNE WHITE
Contributing Writer

Patricia Jackson remembers her reaction when she first moved to her neighborhood on the far South Side of Chicago.

"I started becoming allergic to the air," Jackson said. "I had an itching problem that I had to take medication for and made me sleep for three days."

Jackson said she was a victim of environmental racism, the social phenomenon which results in the disproportionately large number of health and

environmental risks cast upon people of color in their communities. Examples include toxic landfills, waste incinerators and industrial dumping.

That's when Jackson decided to volunteer at People for Community Recovery in Chicago. PFCR is a non-profit organization that has been fighting environmental racism in Chicago for 13 years. Jackson now serves as the environmental policy coordinator.

"We have a lot of industry on the Southeast Side of Chicago," Jackson said. "Several years ago, we were instrumental in keeping the city from building another landfill."

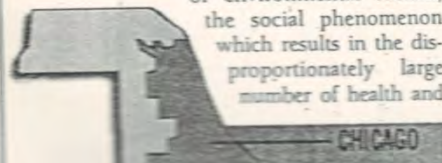
Barbara-Ann G. Lewis, a civil engineer-

ing professor at Northwestern, teaches an environmental impact class that focuses on environmental justice.

Environmental justice is a set of laws requiring federal agencies to review and halt environmental actions and policies that can hurt low-income, minority communities.

"Generally, the more wealthy people tend to win out because they have the most money and the best lawyers over certain groups of people who are poor and don't know how to organize," Lewis said. "Sometimes, advantage is taken of the poor, and their health can suffer as a conse-

See ENVIRONMENTAL JUSTICE on page 2



CHICAGO

► ENVIRONMENTAL

● Definition of environmental justice: Set of laws requiring federal agencies

● Supporting Statistics: up a quarter of the poor

THE PROTEST office for the P



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More Intense Flooding

Among 4,667 Detroit households surveyed between 2012 and 2020, 46 percent have dealt with flooding....shows clusters of streets on the west side, the northeast and lower east side that are prone to flooding.

Decades of under investment



The City shared this map at a press event on June 28 of Detroit homes impacted by flooding. Since the rain, the Detroit Water and Sewage Department has received more than 75,000 calls about flood and sewage problems. (City of Detroit slide)

Electrical Grid Failures + Heat Risk

> *Environ Sci Technol.* 2021 May 18;55(10):6957-6964. doi: 10.1021/acs.est.1c00024.
Epub 2021 Apr 30.

Compound Climate and Infrastructure Events: How Electrical Grid Failure Alters Heat Wave Risk

Brian Stone Jr ¹, Evan Mallen ¹, Mayuri Rajput ², Carina J Gronlund ³, Ashley M Broadbent ⁴,
E Scott Krayenhoff ⁵, Godfried Augenbroe ², Marie S O'Neill ³, Matei Georgescu ⁴

- Michigan ranks fourth nationally for the number of hours each year that the average customer is without power.
- Detroit is at elevated risk during heatwaves even if there isn't a power outage.
- 50,000 residents are at risk of health impacts like heat exhaustion or heat stroke without a blackout on account of factors like a lack of air conditioning and a large number of single-family homes.
- That number increases to 450,000 — roughly two-thirds of the city's population — when there's a simultaneous blackout and heat event.



- Are there multiple **black-outs** that have exacerbated **climate-related health issues**?
- Are residents experiencing an **energy burden**, particularly during extreme weather events?
- Does the current city climate plan (if it exists) **adequately provide adaptation practices, policies and procedures**?
- Is there adequate access to affordable, **clean energy options**?
- How do resource and repair community's burdened by **multiple environmental stressors**?

Assessing heat-adaptive behaviors among older, urban-dwelling adults

Jalonne L. White-Newsome^{a,*}, Brisa N. Sánchez^{b,1}, Edith A. Parker^{c,2}, J. Timothy Dvonch^{d,3}, Zhenzhen Zhang^b, Marie S. O'Neill^{e,4}

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Climate change and health: Indoor heat exposure in vulnerable populations*

Jalonne L. White-Newsome^{a,*}, Brisa N. Sánchez^{b,1}, Olivier Jolliet^{c,2}, Zhenzhen Zhang^b, Edith A. Parker^{d,3}, J. Timothy Dvonch^{e,4}, and Marie S. O'Neill^{f,4}

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Validating Satellite-Derived Land Surface Temperature with *in Situ* Measurements: A Public Health Perspective

Jalonne L. White-Newsome,¹ Shannon J. Brines,² Daniel G. Brown,² J. Timothy Dvonch,¹ Carina J. Gronlund,¹ Kai Zhang,³ Evan M. Oswald,⁴ and Marie S. O'Neill^{1,5}

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Environmental
*IN*justice

Climate
*IN*justice

Health
*IN*equities

MISUNDERSTOOD CONCEPT OF RESILIENCE

PRE-EXISTING CONDITIONS (HEALTH, SOCIAL)

LACK OR NO ACCESS TO RESOURCES FOR PREVENTION & RESPONSE

LACK OF ENFORCEMENT

REPEATED ENVIRONMENTAL INSULTS

INADEQUATE INFRASTRUCTURE TO MITIGATE THREATS (PHYSICAL, SOCIAL)

CUMULATIVE IMPACTS

SILOS OF DEPLOYMENT

MISSING/DEVALUING GRASSROOTS EXPERTISE AND BRILLIANCE

INSTITUTIONAL AND STRUCTURAL RACISM

syndemic: refers to multiple interrelated epidemics happening at the same time.

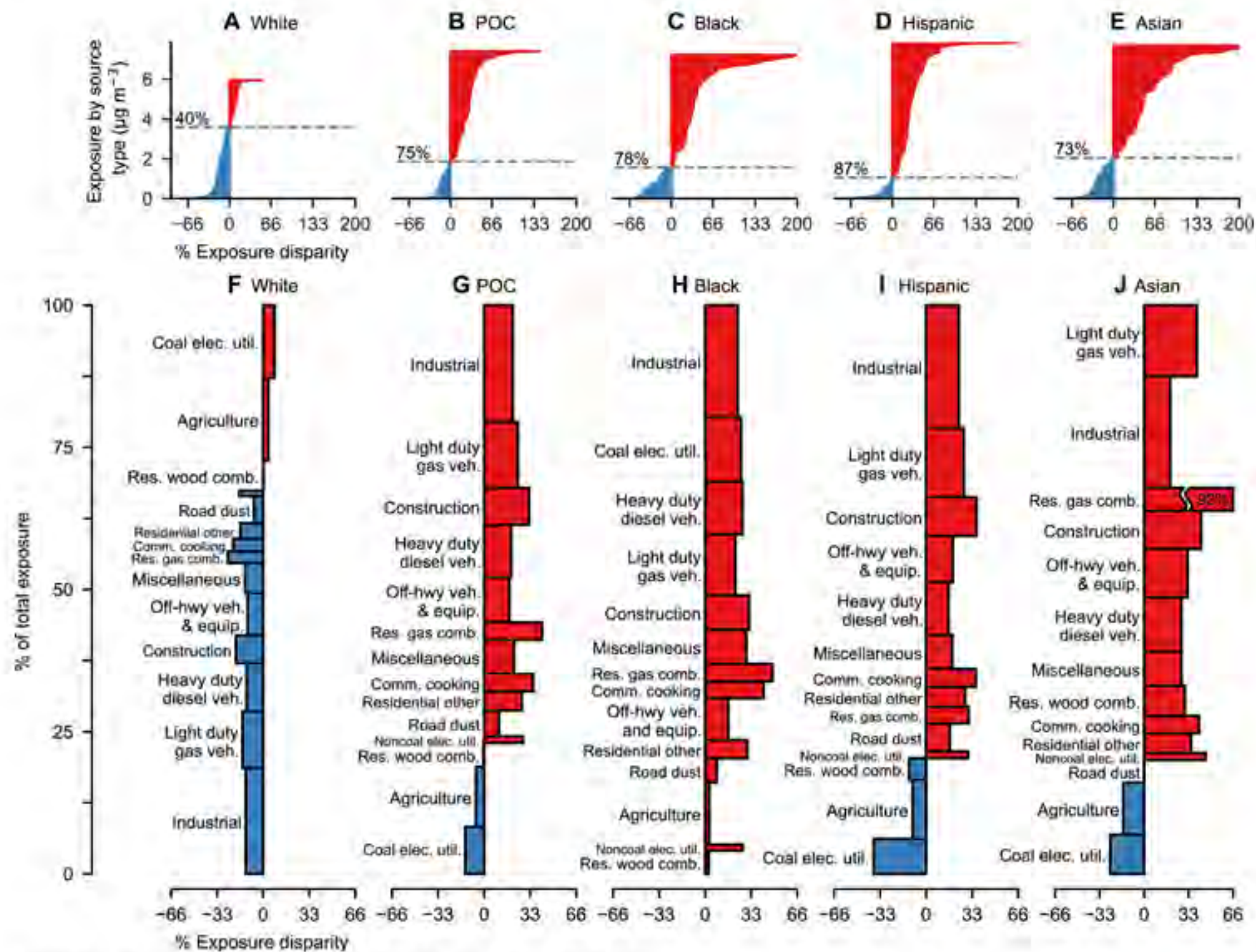


Examining and Addressing COVID-19 Racial Disparities in Detroit

By Rashawn Ray, Jane Fran Morgan,
Lydia Wileden, Samantha Elizondo,
and Destiny Wiley-Yancy

- Black residents are significantly more likely to **contract and die from COVID-19**.
- Black residents are seven times more likely to be **very concerned about being evicted** and 17 times more likely than White residents to report needing rent assistance.
- Black residents are significantly more likely than Whites to report **not having enough money to pay their bills** and take out loans relative to Whites. In fact, Blacks are 40% more likely to report that they run out of money.
- Black residents in Detroit relative to White residents are significantly more likely to **report challenges in securing and maintaining housing, obtaining medication, and getting food, water, and other household supplies**.

Fig. 1 Source contributions to racial-ethnic disparity in PM2.5 exposure.



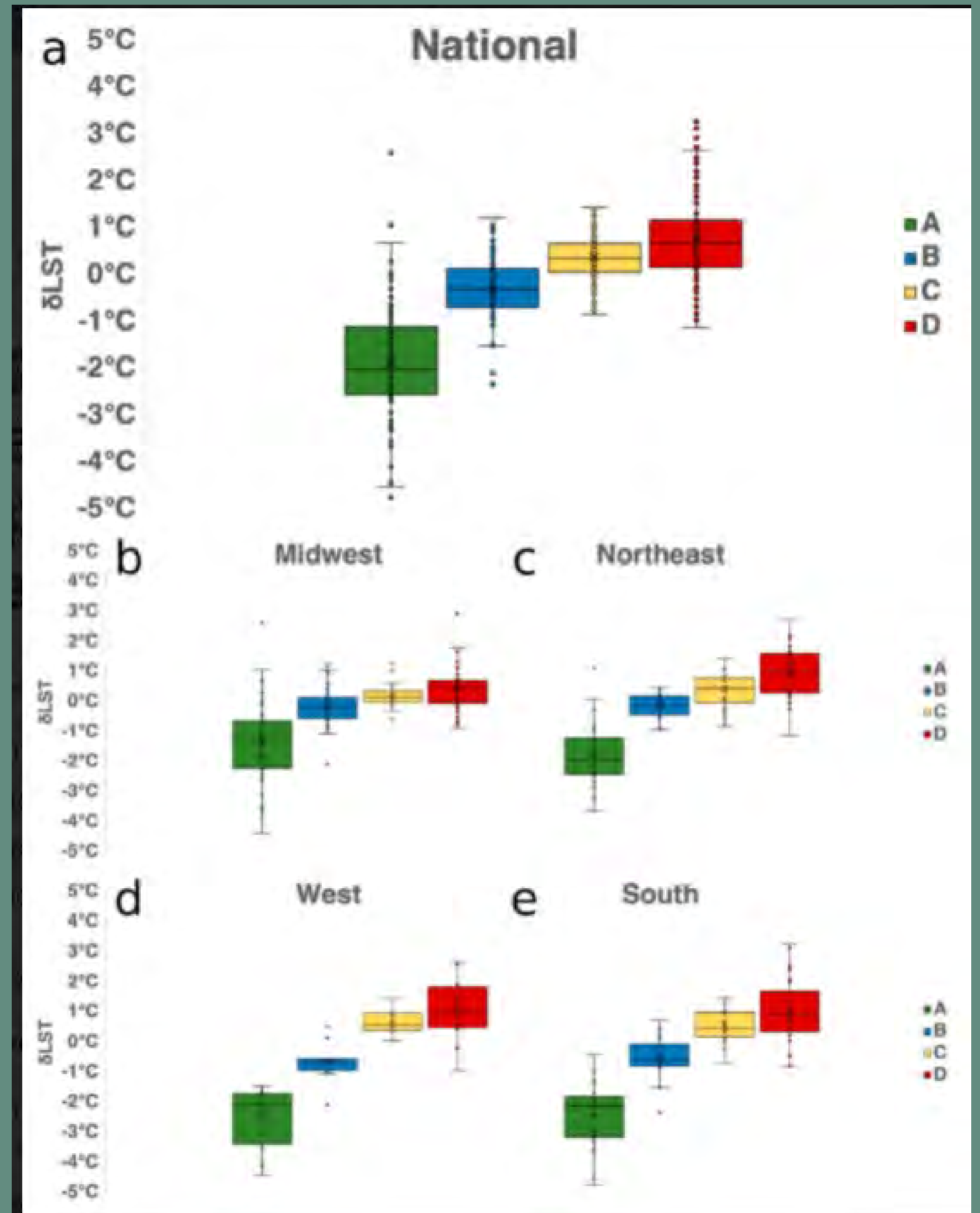
Christopher W. Tessum et al. *Sci Adv* 2021;7:eabf4491

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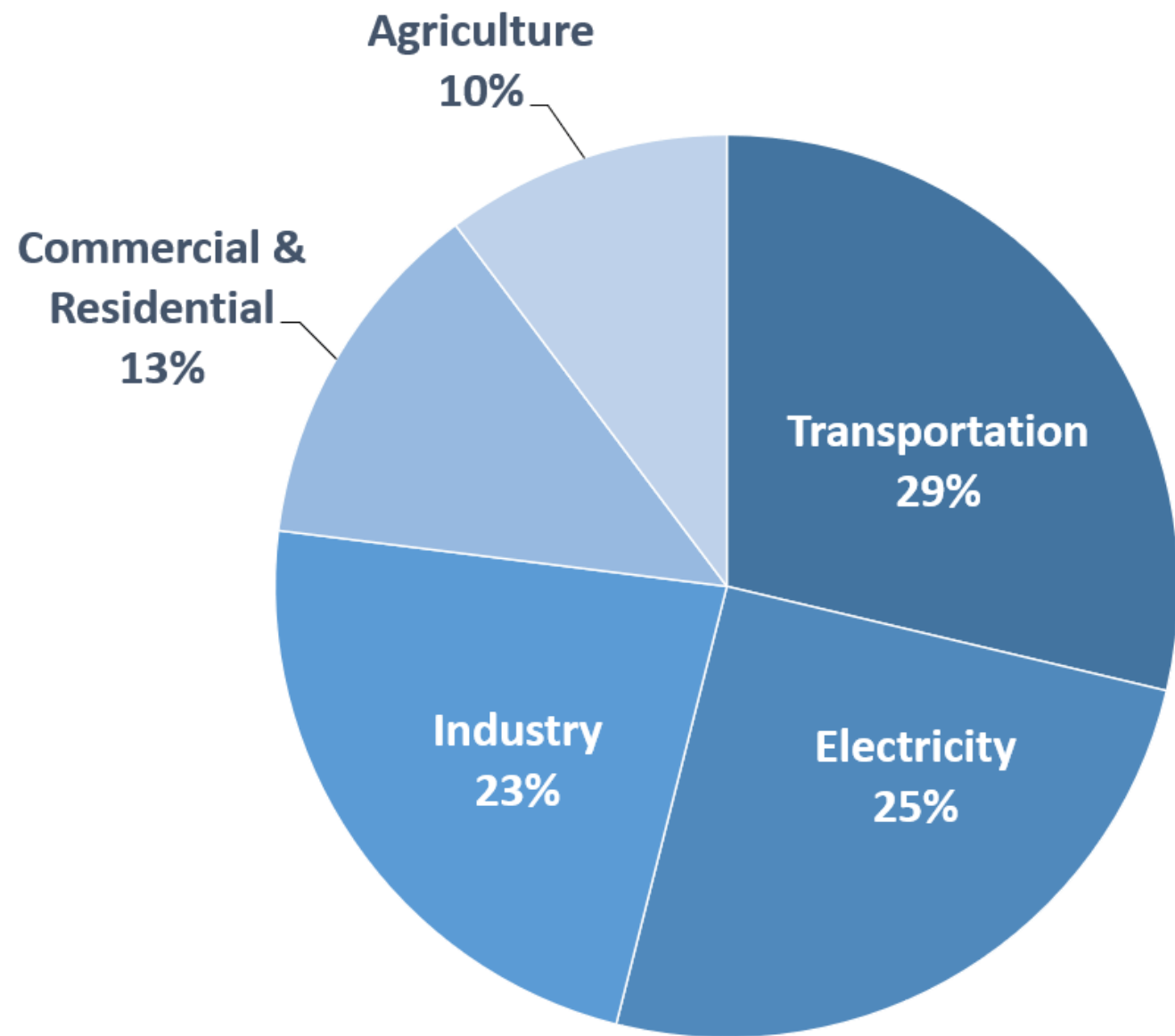
"nearly all major emission source sectors disproportionately affect people of color"

Through a spatial analysis of 108 urban areas in the United States, 94% of studied areas display consistent city-scale patterns of elevated land surface temperatures in formerly redlined areas relative to their non-redlined neighbor. This study reveals that historical housing policies may, in fact, be **directly responsible for disproportionate exposure to current heat events.**

CLIMATE 2020



Total U.S. Greenhouse Gas Emissions by Economic Sector in 2019



U.S. Environmental Protection Agency (2021). Inventory of U.S.
Greenhouse Gas Emissions and Sinks: 1990-2019

Equitable Decarbonization is necessary to achieve climate & environmental justice.

Energy Democracy – the shift from the corporate, centralized fossil fuel economy – is designed on the principle of no harm to the environment, must support local economies, and contribute to the health and well-being for all peoples.

CLIMATE JUSTICE ALLIANCE
COMMUNITIES UNITED FOR A JUST TRANSITION

EBI, K.L., J.M. BALBUS, G. LUBER, A. BOLE, A. CRIMMINS, G. GLASS, S. SAHA, M.M. SHIMAMOTO, J. TRTANJ, AND J.L. WHITE-NEWSOME, 2018: HUMAN HEALTH. IN IMPACTS, RISKS, AND ADAPTATION IN THE UNITED STATES: FOURTH NATIONAL CLIMATE ASSESSMENT, VOLUME II [REIDMILLER, D.R., C.W. AVERY, D.R. EASTERLING, K.E. KUNKEL, K.L.M. LEWIS, T.K. MAYCOCK, AND B.C. STEWART (EDS.)]. U.S. GLOBAL CHANGE RESEARCH PROGRAM, WASHINGTON, DC, USA, PP. 539–571. DOI: 10.7930/NCA4.2018

Climate Change and Health

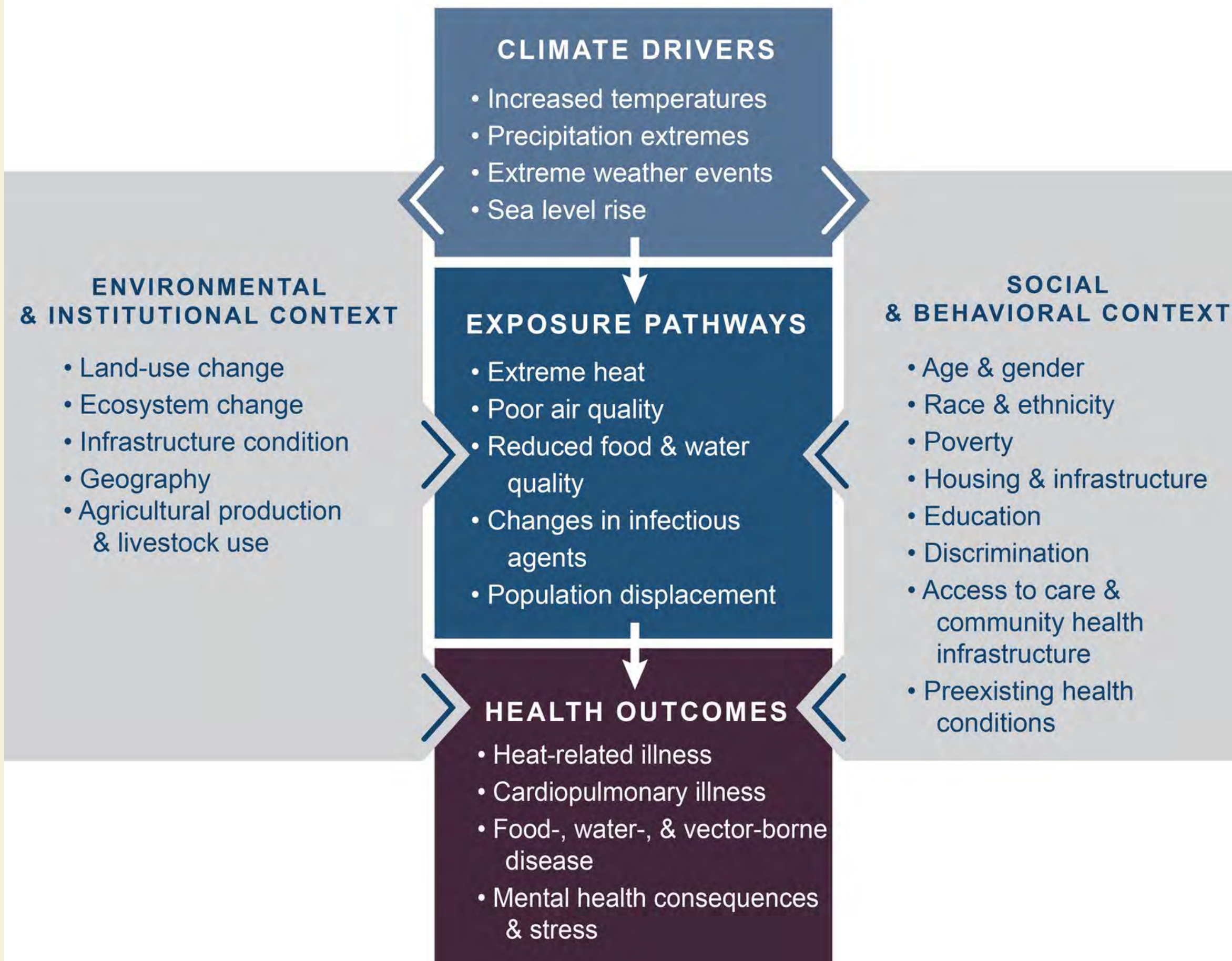
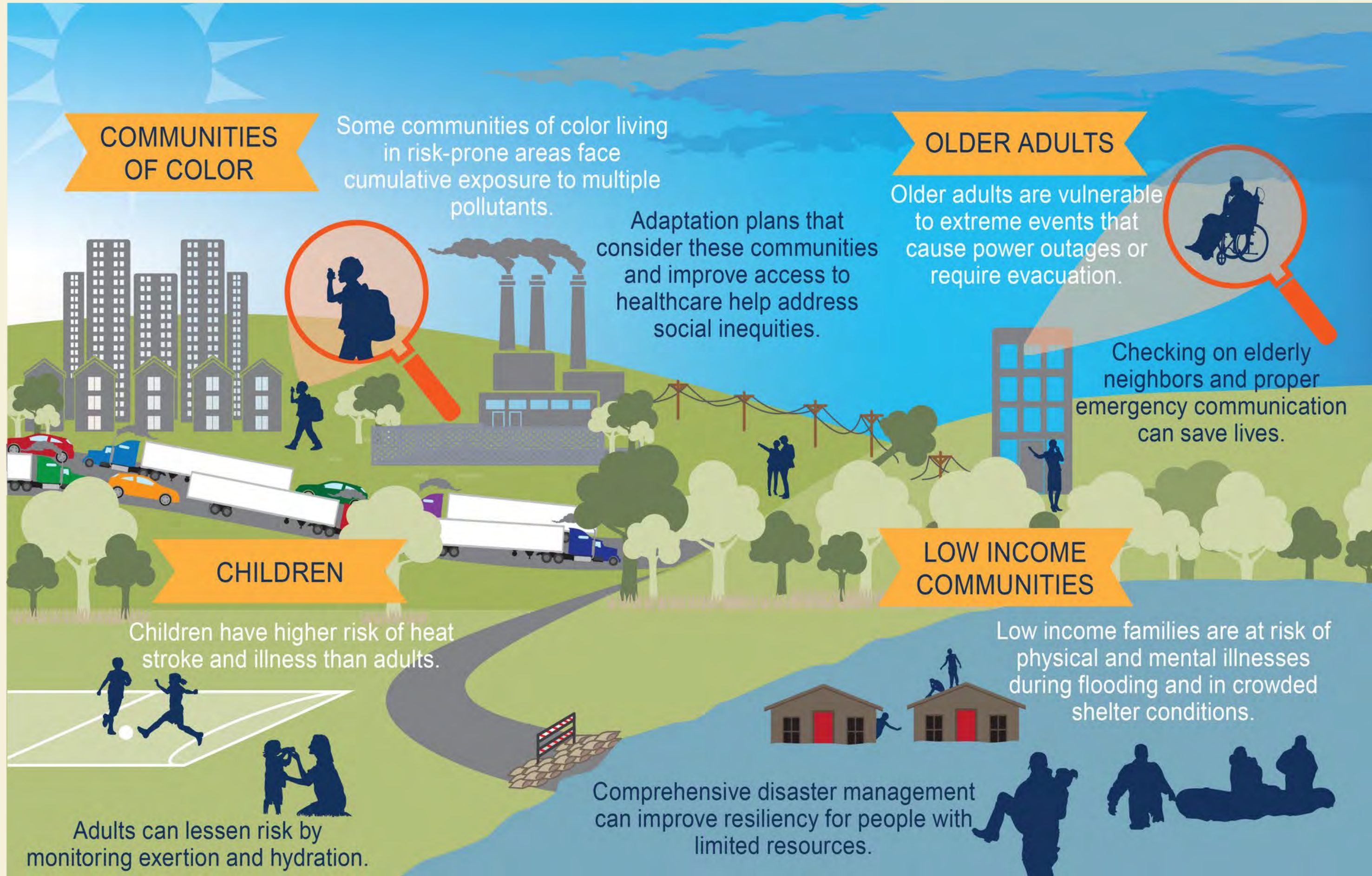


Figure 14.2 Vulnerable Populations
National Climate Assessment, 2019



So how do we develop solutions that center the needs of people as you strive for decarbonization mobility & energy democracy?

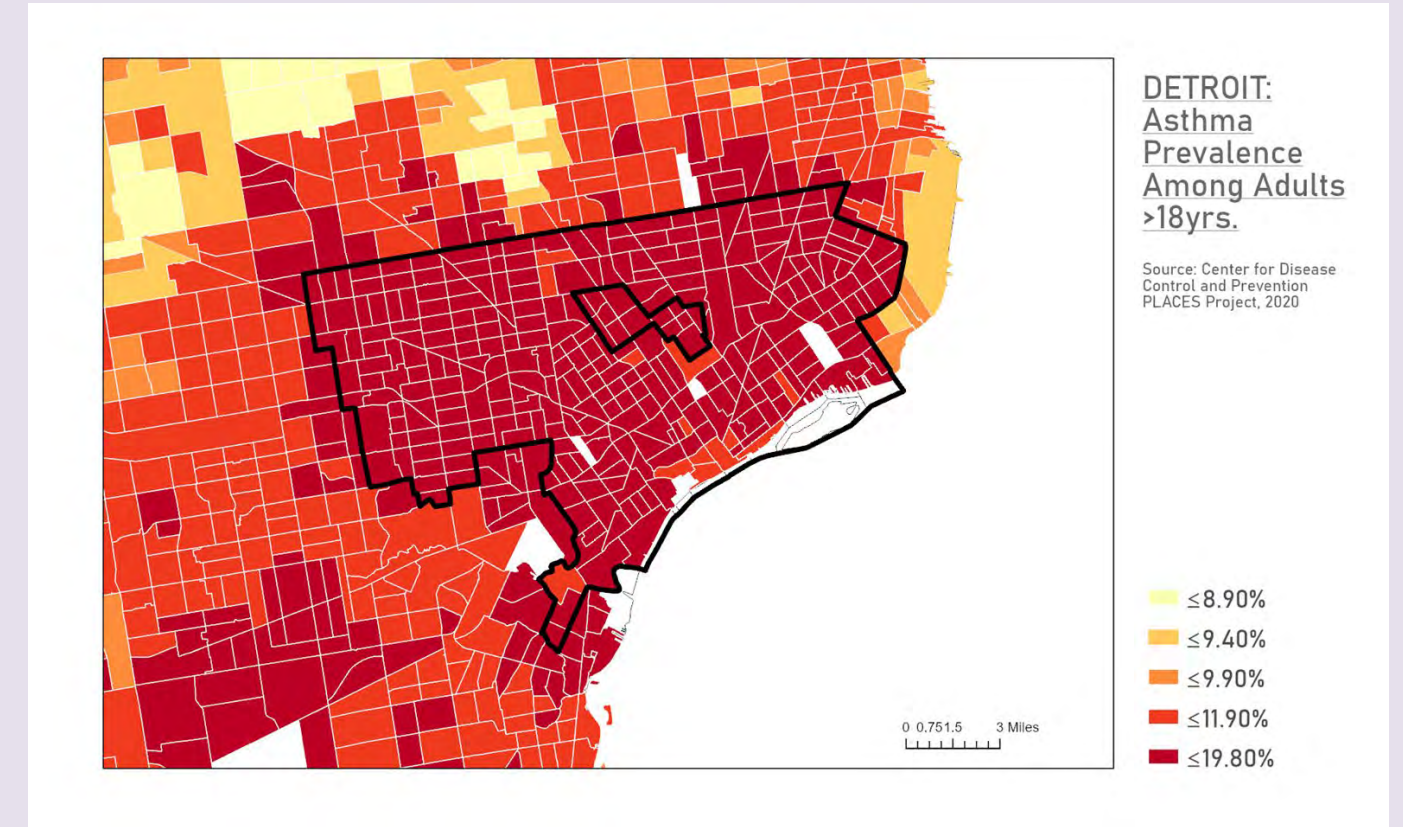
A.D.A.P.T.



Acknowledge Harm



Legacy Pollution



Existing Health Disparities

Decades of under investment



The City shared this map at a press event on June 28 of Detroit homes impacted by flooding. Since the rain, the Detroit Water and Sewerage Department has received more than 75,000 calls about flood and sewerage problems. (City of Detroit slide)

Hot Spots of disruption

Demand Accountability

New Jersey Passes Landmark Environmental Justice Legislation
Tuesday, September 1, 2020

- Requires the state Department of Environmental Protection to deny permits for power plants, incinerators, landfills, large recycling facilities and sewage treatment plants in certain minority and impoverished neighborhoods if the projects pose health and environmental risks in conjunction with the threats those communities already face.
- The agency would be required to make a determination that compares the stressors of that community to those other communities face.

Address Racism

DIFFERENTIAL RESPONSIBILITY



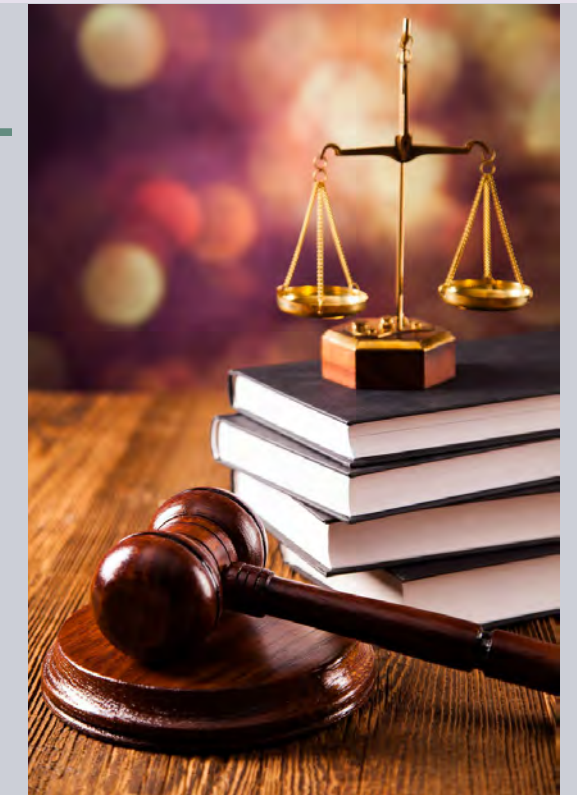
DIFFERENTIAL PREPAREDNESS & RESPONSE



DIFFERENTIAL RESOURCES



DIFFERENTIAL PROTECTION



Prioritize Equity

Equity analysis process....

- Who/whom will benefit from this change?
- Who/whom could be negatively impacted by the proposed change?
- Are there other pathways that offer a more equitable solution?
- Have we engaged all the voices we need - at all stages of the process - to ensure that all perspectives are represented and influence the solution?
- Have we set up a process to 'check in at various frequencies' to ensure the process is working?
- What is the data that we need to collect or begin collecting to validate 'no harm' is being caused by our actions?
- What is the frequency of communication - and to who/whom - that is needed to ensure an inclusive process from start to finish?

Transform Systems

The Justice40 Initiative

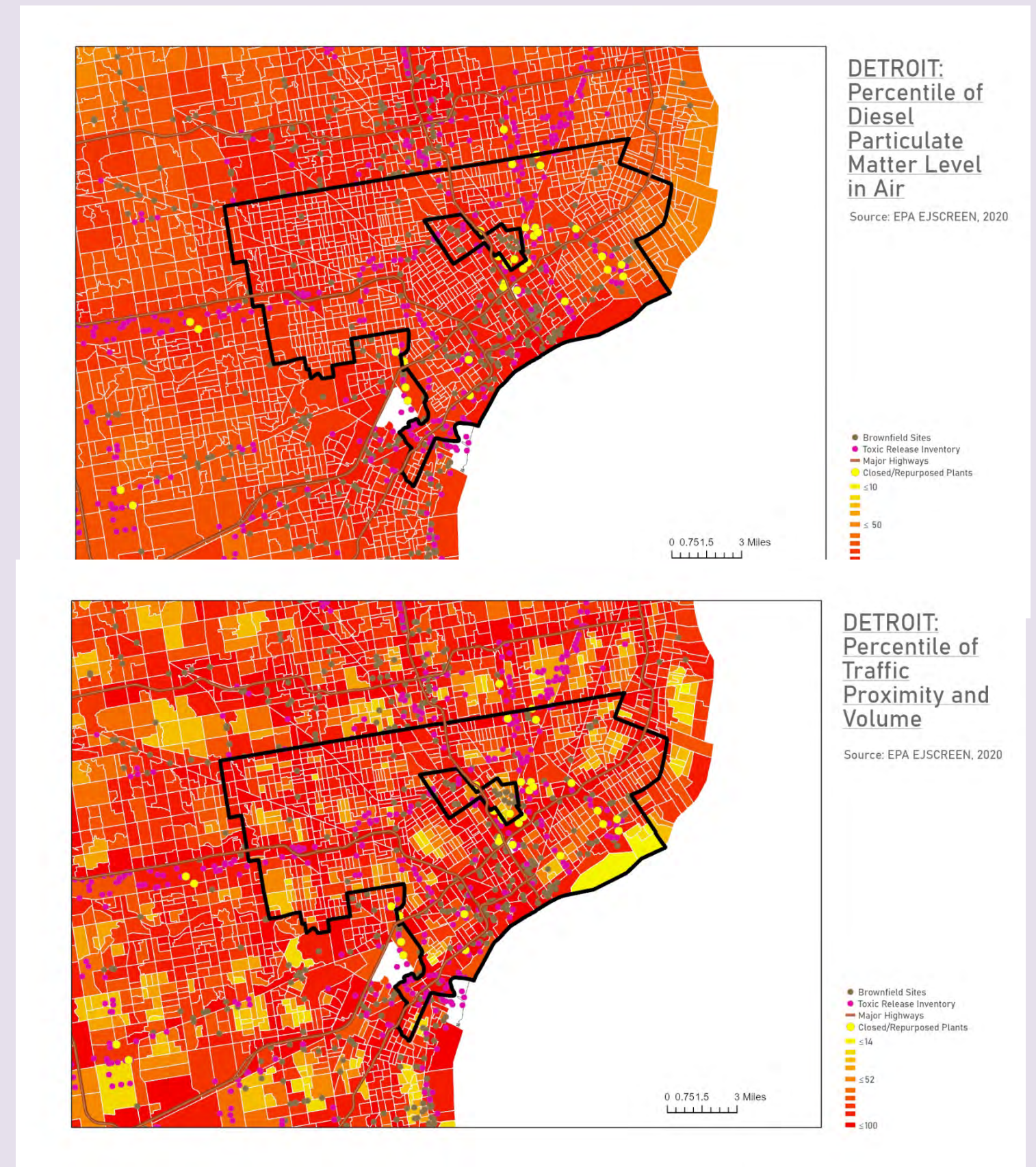


- Climate Change
- Clean Energy & Energy Efficiency
- Clean Transportation
- Affordable & Sustainable Housing
- Training & Workforce Development
- Remediation and Reduction of Legacy Pollution
- Development of Critical Clean Water Infrastructure

Roosevelt Project: Environmental Justice, Health & Vehicle Electrification: Challenges, Opportunities & Tools for Equitable Action (forthcoming Oct. 2021)

Project Goal: Explore the environmental justice and health impacts of the automotive industry's transition to eVs in six study cities: urban (Flint, Detroit, Toledo) and rural areas (Lima, Lordstown, Kokomo) in the Midwest.

- *How might the transition to electric vehicles disproportionately impact the physical environment and community health?*
- *What frameworks/policies/platforms are necessary to support a thoughtful, equitable transition from internal combustion engines to eVs?*



Recommended Policy, Process, and Practice Actions for the EV Transition		
<i>Policy</i>	<i>Process</i>	<i>Practice</i>
Prioritize and Enforce Producer Transparency and Worker Safety in EV Supply Chain and Manufacturing	Holistic Planning: Account for Overlapping Challenges + Opportunities Across Connected Communities	Linking Climate and Environmental Health Outcomes to Clinical Settings, Health Promotion, and Health Education
EV Corporate Responsibility for EJ: Extended Producer Responsibility, Collective Industry Waste Management Infrastructure, and Lemon Laws	Justice Based Planning and Deployment of EVs into the Transport Ecosystem/ Planning for Mobility Equity	Representation Beyond Tokenization in Decision Making and Funding/ Bringing EJ and BIPOC Leadership to the Front
Equitable EV Incentive Programs: Used EV Incentives, Income-Based Rebates, and Immediate Discounts	Community Engagement Prior to Decision Making, Defining Benefits, Creating Metrics, and Taking Action to Deploy Changes	Electrify Everything: Considering the Climate, Environmental, and Transport Justice of Multimodal Transport Electrification
Ensure Quality Jobs, Quality Benefits, and Livable Wages for Frontline Auto Communities	Community Needs Assessments	Learning from Past Industrial Divestment: Long Range Planning for Equitable Investment Strategies
Accounting for Environmental Injustice/ Pay to Pollute	Equitable Siting of EV Industrial Facilities	Cultivating BIPOC Youth Leadership and Entrepreneurship in the EV Market
Protective Energy Pricing	Equitable Charging Deployment	



SECTOR ACTIONS TO DRIVE HUMAN HEALTH & WELL-BEING TO ADDRESS CLIMATE CHANGE & EXTREME HEAT

ACTION/SECTOR	Public Health Practitioners/Health Industry	Philanthropy	Industry	Local Government	Academia
SCIENCE	Develop the science that can lead to policies that can prevent harmful exposures (i.e. heat, mold)	Support & fund the variety of innovators that can inform response and practice. (i.e., BIPOC-led orgs.)	Provide financial support to local governments to develop the appropriate modeling for climate planning	Use the screening tools developed by academics to prioritize and focus resource distribution	Provide the level of data granularity to educate industrial partners on their impact. Provide similar data to governmental entities to create stronger plans
PREPARATION	Co-design a community response plan with impacted communities.	Convene cross-sector stakeholders, including public health practitioners at multiple tables.	Deploy generators (run on clean energy) for neighborhoods that frequently experience black-outs or grid challenges.	Acknowledge the existing stressors and what functions are exacerbating injustice	Help collect and elevate stories and voices of impacted communities to inform industrial and government policies
RESPONSE	Focus resources/support and capacity on neighborhoods that have high vulnerability & 'failed infrastructure'.	Provide funding to 'fill the gaps and needs', as defined by the impacted community	Create, support & provide the materials for resilience hubs in communities	Target highly vulnerable places with previously failed infrastructure.	Students and resources can be deployed to collect information to support response during a crisis
PRACTICE	Understand the community context. Add a prescription for 'heat health' in all patient interactions.	Elevate what works through reporting, sharing of best practices, supporting 'mentorship' programs.	Establish an evaluation/accountability process to reduce GHG emissions.	Be open to using traditional and non-traditional data to shape policy	Create research agendas balanced by discovery, but sharing power/leadership/resources with community scientists.

PEOPLE: Inform the response and shape the agenda. Demand Accountability. Deserve Health Equity.
Centered in the Science, Policy, Practice & Prevention Solutions

EDGE²

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Delivering people-centered solutions to transform communities

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