



# EQUITY IN CLIMATE CHANGE AND PUBLIC HEALTH

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# OVERVIEW

- Define terms
  - Systemic racism,
  - Environmental racism
  - Environmental justice
  - Climate justice
- Health Disparities Related to the Environment
- Climate and Health
- Recommendations



# WHAT IS SYSTEMIC RACISM?

- Systemic racism is not an insult, it is a description
  - Policies that involve multiple institutional disciplines that have disproportionate racial effects
- Examples of policies that have differential racial effects (i.e. systemic racism)
  - Policing policies (e.g. George Floyd's death, stop and frisk)
  - Justice system (e.g. incarceration rates)
  - Health system (e.g. uninsured rates)
  - Housing policies (e.g. access to home ownership)
  - Economic policies (e.g. wage and income gaps)
  - Financial policies (e.g. interest rates on loans)
  - Education policies (e.g. test scores, graduation rates)
  - Transportation policies (e.g. access to jobs, public transportation usage)
- These policies also affect health—Social Determinates of Health
- All of these policies and more work together to disadvantage people of color of all income levels

# ENVIRONMENTAL RACISM

- Environmental Racism is Systemic Racism
- The greatest predictor of where environmental hazards are placed is the percentage of people of color, not income
  - In Connecticut (DEP, UHART studies)
  - In the United States
  - Globally
- Greater exposure to environmental hazards leads to poorer health
- Racism is a toxicant enhancer

# WHAT IS ENVIRONMENTAL JUSTICE?

- EJ is about stopping environmental injustice and changing environmental policy to reduce disproportionate health effects

The U.S. Environmental Protection Agency defines Environmental Justice as:



- "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."

# WHAT IS ENVIRONMENTAL JUSTICE? CONTINUED

- Fair treatment means that no group of people, including racial, ethnic, or socioeconomic group should bear a disproportionate share of the negative environmental consequences ...”



# WHAT IS MEANINGFUL INVOLVEMENT?

- Environmental justice requires meaningful involvement
  - involvement of those most impacted in the individual, corporate, and governmental decision-making processes **in a way that can change the outcome of the process.**
- Environmental Justice is all about **HEALTH**


# WHAT IS CLIMATE JUSTICE?

- Climate justice is simply environmental justice applied to climate change policies
- Environmental Justice organizations are community-based organizations led by people of color, low income people, or those otherwise most impacted by environmental injustice
- EJ orgs often see their mission as a broad one to address the related issues of
  - Health
  - Climate
  - Economics
  - Racism



# ASTHMA DISPARITIES AND ENVIRONMENT

- West Indian/Afro-Caribbean immigrants are in better health than African Americans for one generation, then their health drops down to that of AA's
  - Hartford 80% Black and Latinx, 20% asthma rates
  - Trash incinerator, power plants
- Asthma is 50% higher in urban schools in CT when compared to rural schools
- Asthma deaths are 6 times higher in Black males between the ages of 15 and 24 than White males of that age group
- More than half of lead poisoned children in CT are Black or Latino



# HEALTH DISPARITIES AND ENVIRONMENT

- Cardiovascular Disease
- Cancer,
- Diabetes,
- Lupus,
- Depression,
- ADHD,
- Low Birthweight,
- Sudden Death,
- And More....



# CUMULATIVE EXPOSURES

- Communities of Color are often at greater risk because of cumulative exposures to toxicants
- Environmental siting policies and political power lead to cumulative exposures
- Zip codes are good predictors of life expectancy

# COMMON ENVIRONMENTAL JUSTICE ISSUES

## Land and Solid Waste Pollution

- Landfills and Dumps
- Waste Transfer Stations
- Brownfields
- Hazardous Waste
- Abandoned Storage Drums of Chemicals
- PCB's in Soil
- TCE Contaminated Soil
- Arsenic in soil

## Air Toxics

- Trash, Sewage Sludge and Other Incinerators
- Power Plants with Ammonia Gas
- Indoor air contaminants

## Water Contamination

- Chemical and Pharmaceutical Sewage Contamination
- Fish Contamination with Mercury, PCB's
- Sewage Sludge Compost/Pellets

# COMMON ENVIRONMENTAL JUSTICE ISSUES

## Local Business Toxins

- Auto Body Shops
- Dry Cleaners
- Nail Salons
- Chrome Plating Facilities
- Cement Kilns
- Agricultural Pesticides
- Toxic Release Inventory (TRI) Listed Facilities



## Industrial Pollution

- Refineries
- Chemical Plants
- Plastics/Rubber Factories
- Pharmaceutical Plants
- Paint Manufacturers
- Chlor-Alkali Plants
- Pulp and Paper Processing Facilities
- Industrial or Chemical Fires/Explosions/Spills

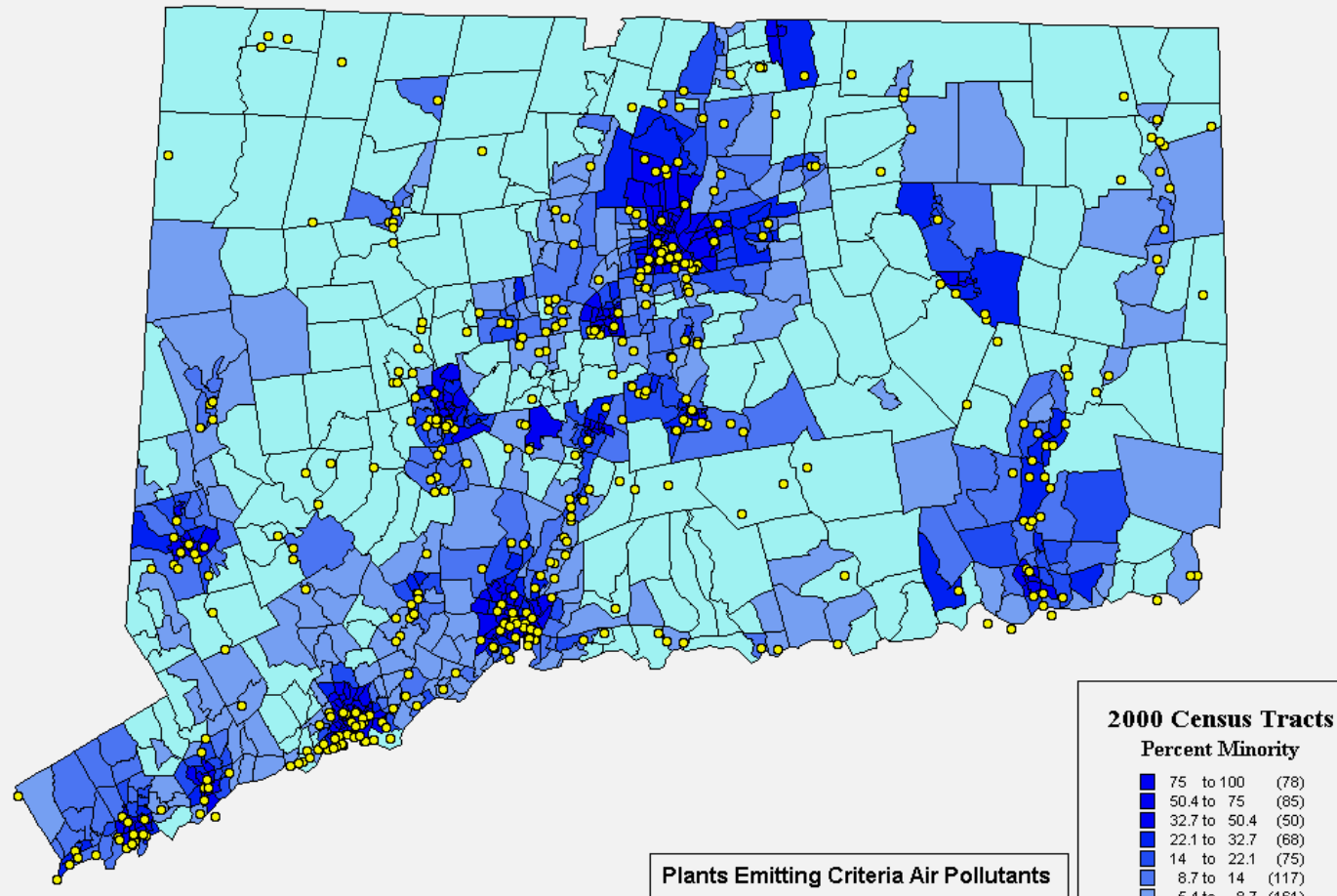
# AIR POLLUTION IN CONNECTICUT

- Air pollution not only contributes to COVID, but also
  - Asthma
  - Other respiratory diseases
  - Heart disease
  - Cancer
  - Learning Disabilities
- Air pollution sources are more often located in communities of color
  - Traffic pollution in transit-dependent neighborhoods
- Global warming exacerbates air pollution



# POINT SOURCE AIR POLLUTION EMISSIONS IN CONNECTICUT 2000

**2000 Census Tracts Percent Minority & Plants Emitting Criteria Air Pollutants**



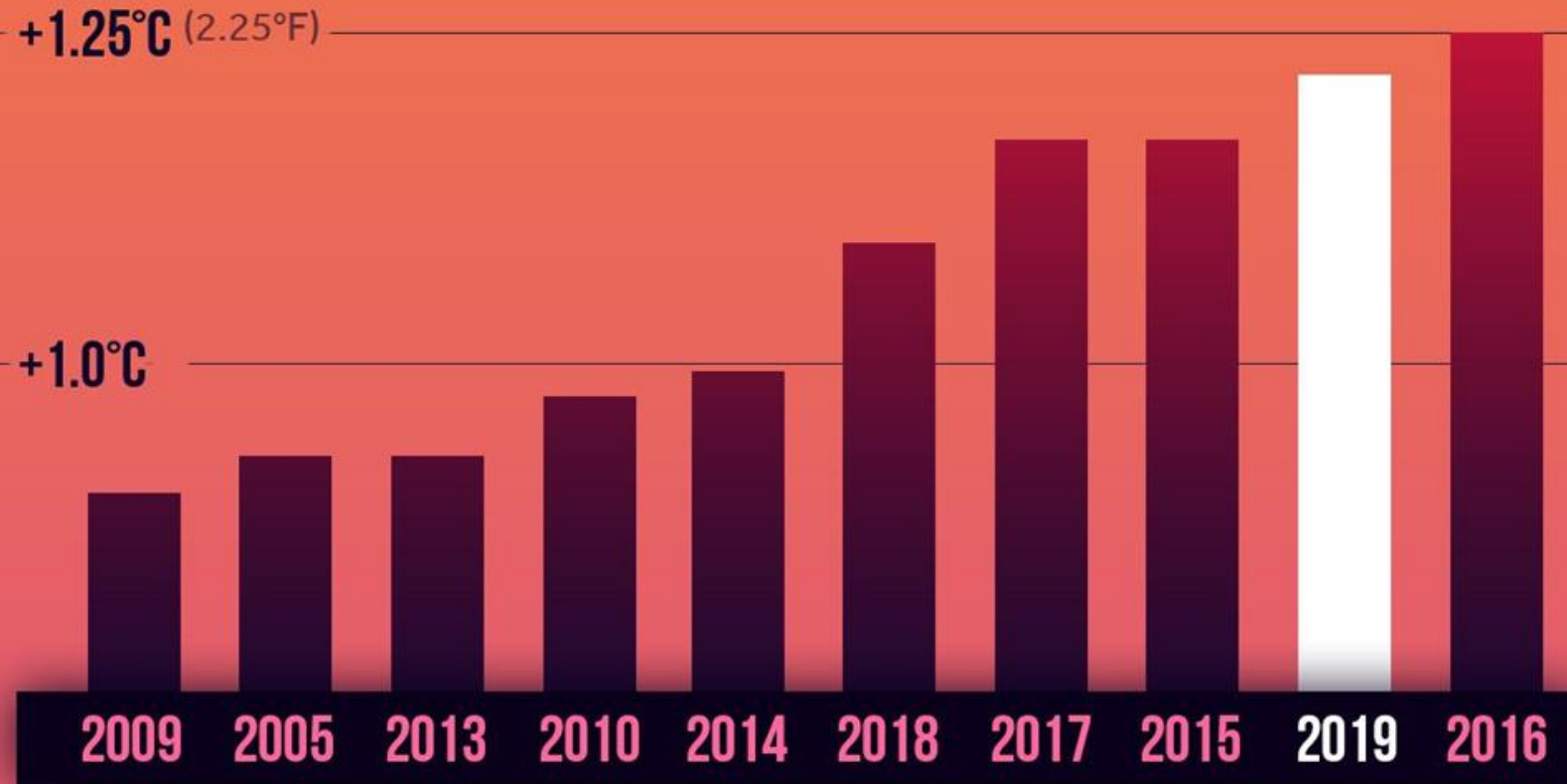
# CLIMATE AND HEALTH

- Like COVID-19 all people are affected by climate change, but some are more affected than others
- Those people who are most impacted by climate change have contributed to it the least
- Many people see climate change, or COVID as existential threats, EJ communities see it as ANOTHER existential threat
- Virtually all studies show that African Americans and Latinos are more concerned about air pollution and water pollutions, but not as involved



# 10 HOTTEST YEARS ON RECORD GLOBALLY

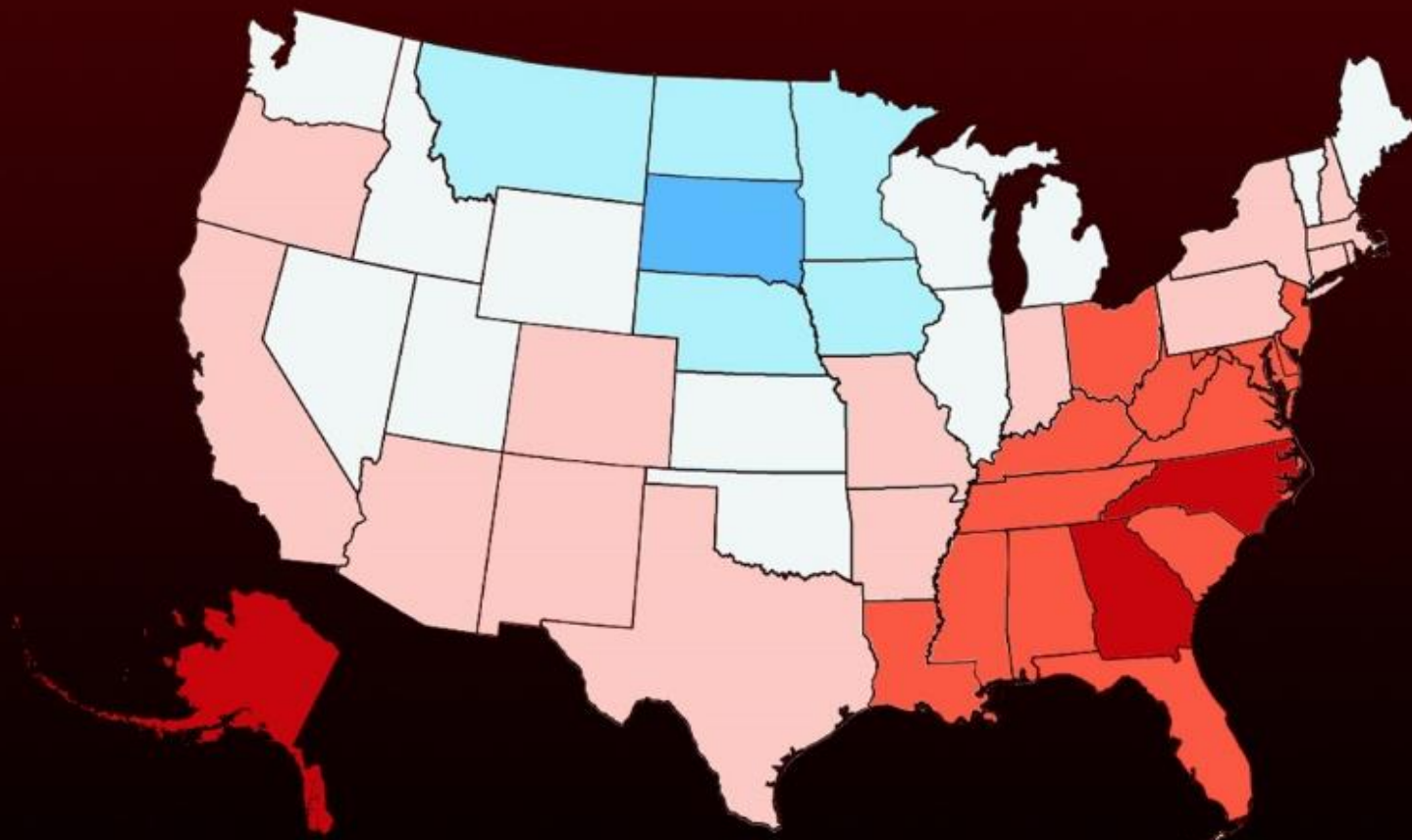
Last 5 = Hottest 5



Source: NASA GISS & NOAA NCEI global temperature anomalies (°C) averaged and adjusted to early industrial baseline (1881-1910). Data as of 1/15/2020.

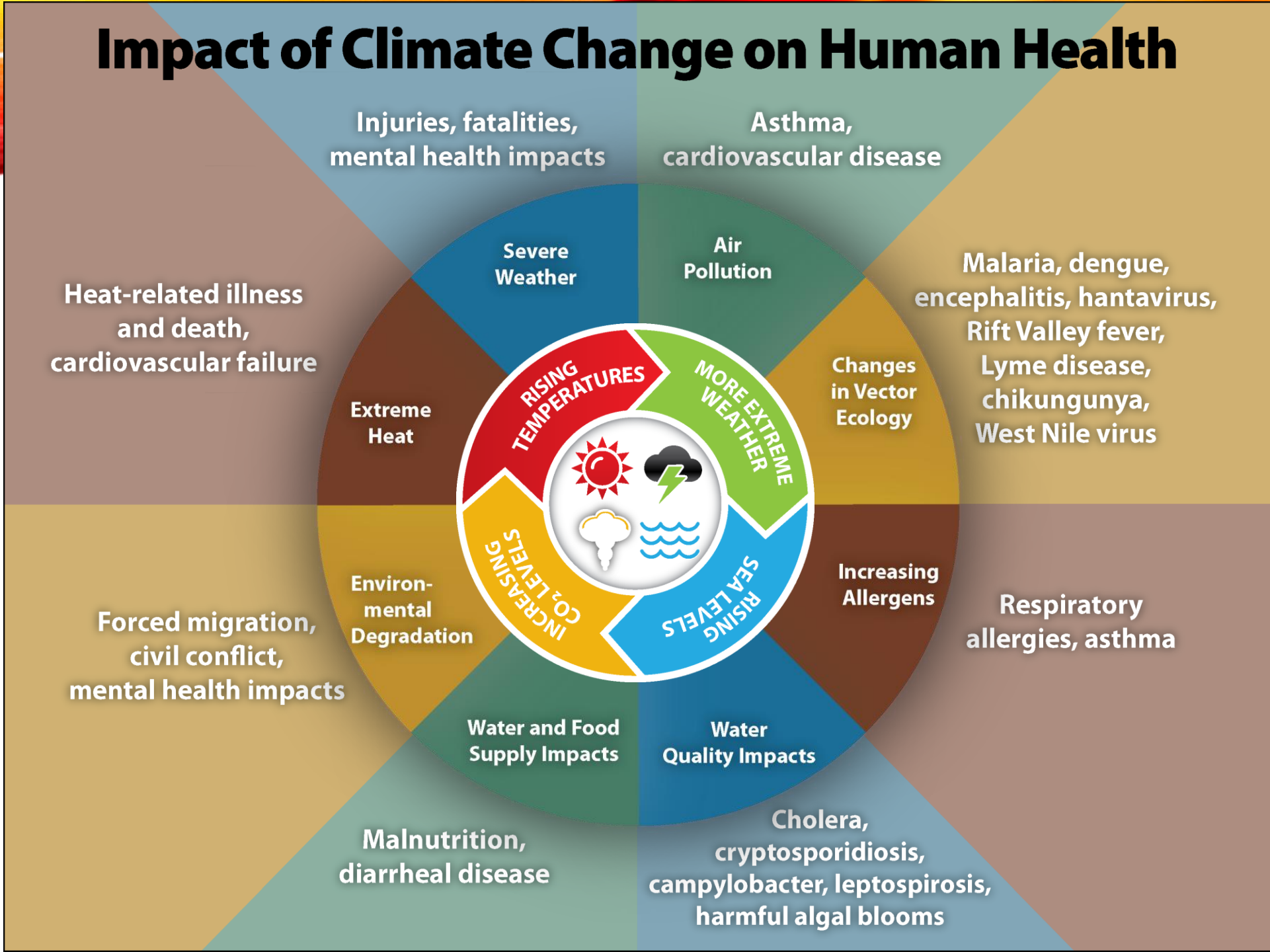
CLIMATE  CENTRAL

# 2019 TEMPERATURE



Source: NOAA/NCEI National Climate Report

# Impact of Climate Change on Human Health



# HEATWAVE MNEMONIC

- H – Heat exhaustion and heat stroke (responsible for the most weather-related deaths annually)
- E – Exacerbation of pre-existing cardiac or respiratory disease
- A – Asthma
- T – Traumatic Injury
  
- W – Water and foodborne illness
- A – Allergies
- V – Vector-borne diseases such as West Nile Fever and Zika
- E – Emotional and mental health conditions such as PTSD

# HEATWAVE DISPARITIES

- H – Heat exhaustion and heat stroke –
  - NO A/C, OUTDOOR WORKERS
- E – Exacerbation of pre-existing cardiac or respiratory disease –
  - INCREASED RATES
- A – Asthma-
  - INCREASED RATES
- T – Traumatic Injury-
  - LESS ABILITY TO FLEE FROM OR RECOVER FROM EXTREME WEATHER
  
- W – Water and foodborne illness
  - LESS ACCESS TO CLEAN WATER, INABILITY TO AFFORD HEALTHY FOOD, FOOD DESERTS, SUBSISTENCE FISHING
- A – Allergies
  - NO A/C, OUTDOOR WORKERS
- V – Vector-borne diseases such as West Nile Fever and Zika
  - NO OR INADEQUATE SCREENS
- E – Emotional and mental health conditions such as PTSD
  - LESS ABILITY TO FLEE FROM SEVERE WEATHER

# RECOMMENDATIONS



# CLIMATE SOLUTIONS CAN BE HEALTH SOLUTIONS

- People of color are more exposed to air pollution
- People of color are more likely to live near
  - Coal-fired Electric power generating facilities
  - Natural gas facilities
- Activities that reduce greenhouse gases in the long term also reduce air pollution and water pollution in the short term
- Therefore climate solutions, if designed to do so, can benefit POC disproportionately

# ALL ARE AFFECTED, BUT SOME ARE MORE AFFECTED

- Planning for the most vulnerable will reduce suffering and save the most lives
- Which populations are vulnerable vary by threat and geographic location
  - These populations often have the experience, expertise and information needed to develop more effective plans
- Hyper-local adaptation planning is needed
  - Threats and responses vary widely across the state
  - There should be state funding to pay for planning for each town
  - The people most affected need to be included in planning from the beginning
- GC3 and state agencies can provide information, tools, and guidance





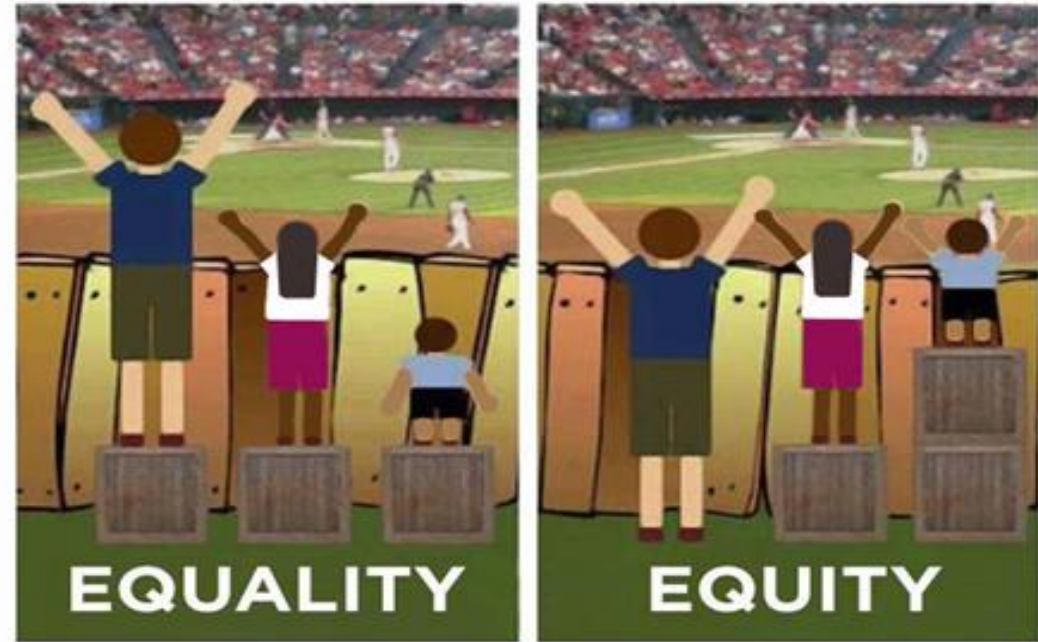
# PROGRAM IMPLEMENTATION

- There need to be a variety of programs to meet the needs of a variety of households and organizations
- Programs should be designed to work together to make them more user friendly (e.g. common application forms/income eligibility criteria)
- Mitigation funding should not go primarily, if at all, to wealthy households
- Adaptation funding should be proportional to the needs
- There should be funding for community organizations to work with low wealth households to engage them and assist them in assessing their needs and applying for the appropriate programs

# FUNDING FOR ENVIRONMENTAL JUSTICE

- Environmental justice organizations in CT have been severely hampered by a lack of funding
- State and private funding is needed
  - It is critical to get state funding to educate and engage those most impacted in the GC3 planning process, especially on the local level
  - There are a very few foundations that fund EJ in Connecticut
  - Encouragement and letters of support from GC3 or government can help develop private funding
- Some EJ organizations have been funded by lawsuit settlements
- SEP funds can be directed to EJ foundations
- The CT EJ Law needs to be updated to provide funding mechanisms

# LAST THOUGHT: COVID-19



The world will never be as it was before our current crisis. If we are deliberate about our efforts, we can make things better, and be more prepared to address our climate crisis and systemic racism.

**Let's plan to come out of the Coronavirus pandemic to a more prepared, just and equitable world**



# THANK YOU!

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