# Climate Change and Health Equity: Introduction to the new OCCHE

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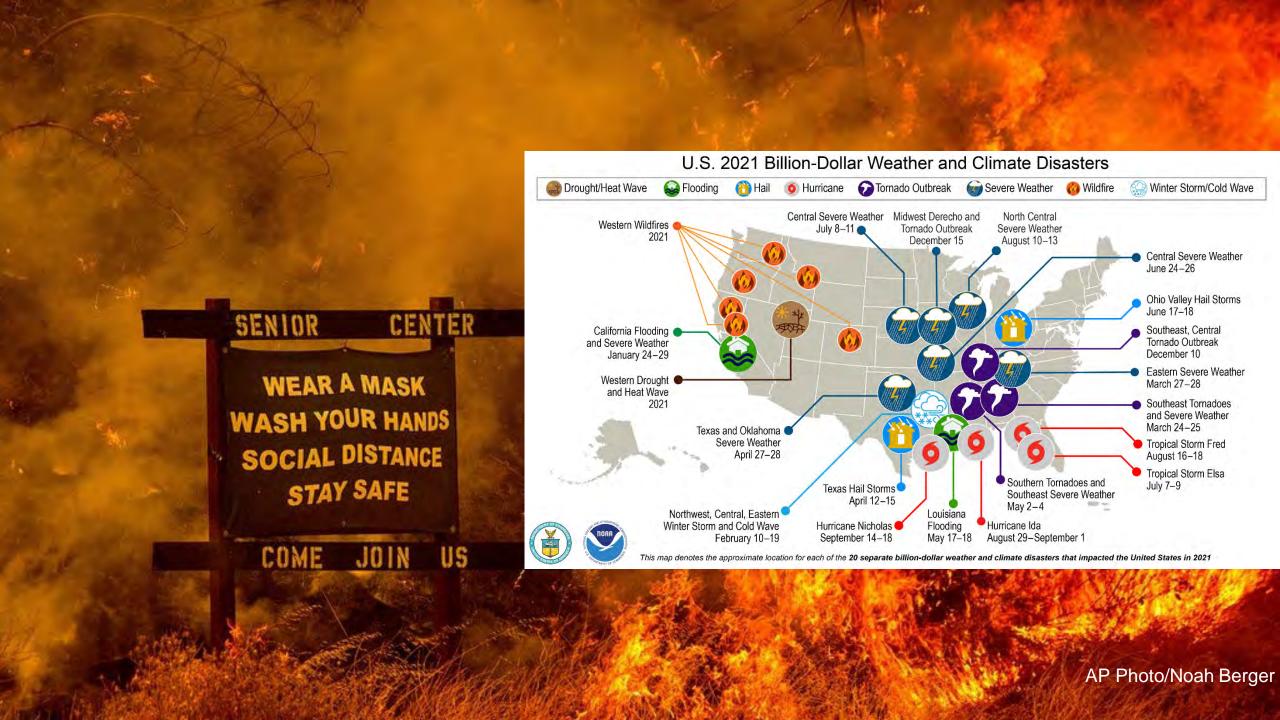
National Advisory Council on the National Health Service Corps March 29, 2022



### **Overview**

- How Climate Change and Health Equity are Connected
- How Climate Change Impacts the Health of Underserved Populations
- Introduction to the Office of Climate Change and Health Equity
- How OCCHE can Partner with HRSA and the National Health Service Corps





### COVID-19 is a Health Equity Issue: Key Drivers of Disease Inequities

### **COVID-19** Inequities

Many social, political and environmental factors, affect community health and contribute to adverse health outcomes, social inequities, and health inequities. The COVID-19 pandemic has further exacerbated existing inequities, with many people suffering from chronic illnesses and other conditions that increase their risk to severe illness. In addition, the lack of investment in addressing barriers to healthy and productive lives in marginalized communities leads to many other health and social consequences. Below are examples of some key interdependent drivers of disease inequities. A multi-sectoral approach is needed to reduce the impact of COVID-19 and other health issues among marginalized, vulnerable, and underserved communities.

#### **Discriminatory Policies**

Policies impacting healthcare, education, finance, criminal justice, and other formative systems which should serve to protect communities can lead to stress as well as act as barriers towards proper healthcare1

#### Mistrust

Insufficient community engagement, combined with misinformation or a lack of consistent information as well as a history of discrimination, causes many marginalized communities to lack trust towards health and social services 7.8

### Limited Access to Essential Services and Resources

Barriers towards health insurance, childcare, sick leave, paid leave, or access to PPE, among others, make some demographics more prone to COVID-19 inequities2

### Low Health Literacy & Misinformation

Many people from ethnically and racially diverse communities as well as people of low SES didn't have the opportunity to develop skills to identify credible news sources, which has been shown to correlate with low health statuses<sup>6</sup>.

### & Social Discrimination

Systemic racism and other forms of social discrimination (e.g., xenophobia, gender discrimination, bias against the LGBTQI+ community) have contributed to discriminatory policies, limited investment in community well-being, lack of access to quality healthcare, and a poor sense of trust between communities and health and social systems 1, 3.

### History of Racism

### **Chronic Stress**

Continued stress can impact physical health, inducing conditions such as heart disease or high blood pressure, which could lead to COVID-19 complications<sup>5</sup>

#### **Poverty**

For many people living in poverty, health is one of many priorities. Too many commitments, such as multiple jobs or concerns with access to food and shelter. make issues such as preventative health seem less urgent

#### Overcrowded Living Conditions

Many groups live in overcrowded conditions such as multi-generational homes or nursing homes, prisons, homeless shelters, or other kinds of group "homes." This can make it difficult to social distance and increase the risk for COVID-19. Of great importance are factors such as unemployment which can lead to homelessness, and therefore increased vulnerability to COVID-191.4

<sup>2)</sup> Pew Research Center, 2020

<sup>3)</sup> Health Affairs, 2020

<sup>4)</sup> NY Times, 2020

<sup>5)</sup> NIMH, 2020 6) Harvard, 2020

<sup>7)</sup> L.C. Cooper and D.C. Crews, 2020

B) J. Jaiswal, C. LoSchiavo, and D. C. Perlman, 2020

# **Unequal Climate Vulnerability**

### Root Causes<sup>1</sup>

Racism, historical and current disenfranchisement, unequal distribution of power and resources rooted in institutions and processes



Environmental justice factors that may increase climate vulnerability<sup>2</sup>

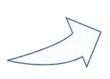
Proximity and exposure to environmental stressors

Unique exposure pathways

Physical infrastructure, such as poor housing

Multiple stressors, cumulative, and compounding impacts

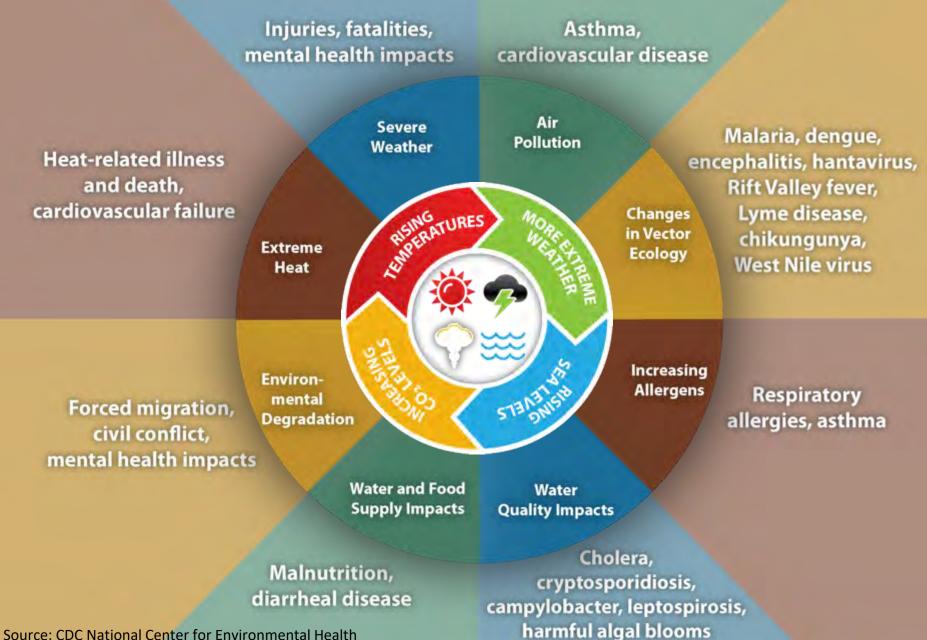
Capacity to participate in decision making



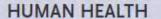
Unequal climate vulnerability

- 1) Adapted from Climate Change, Health and Equity: A Guide for Health Departments, Public Health Institute and American Public Health Association, 2018
- 2) Adapted from Guidance on Considering Environmental Justice During Development of Regulatory Actions FPA 2015

# The Public Health Impacts of Climate Change







HEALTH CARE DELIVERY

### EFFECTS OF CLIMATE CHANGE ON HEALTH SYSTEMS









### WHAT HEALTH SYSTEMS CAN DO





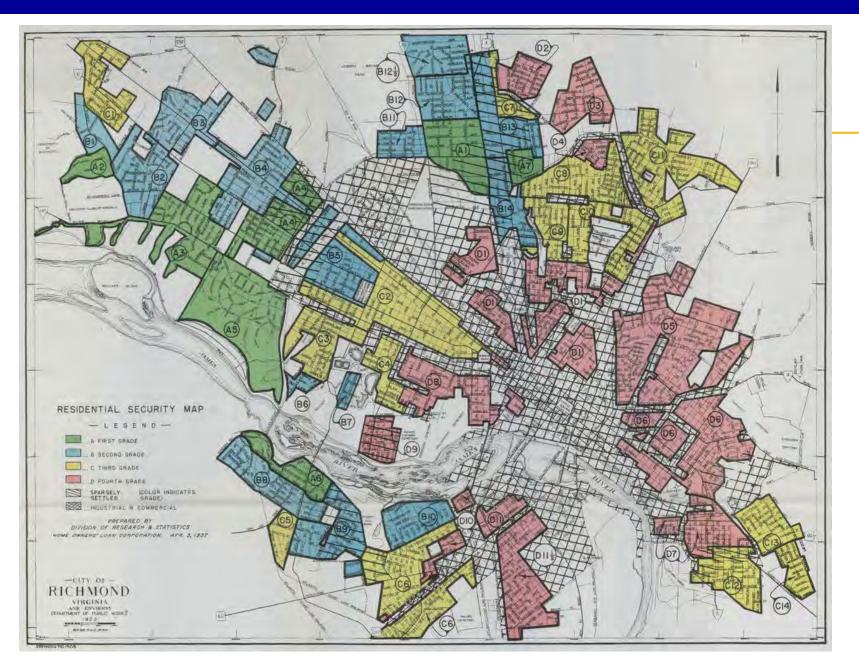






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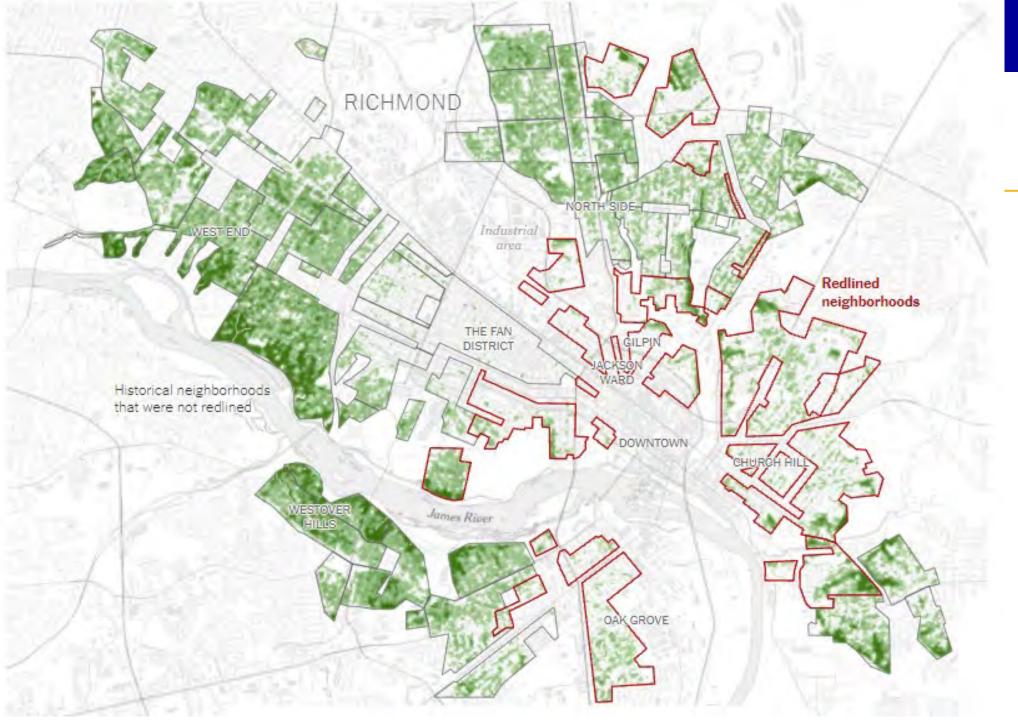
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# Redlining and Climate Justice

1923, City of Richmond, Virginia – "Residential Security Map"

Source: Nelson,
Winling, Marciano,
Connolly, et
al., Mapping
Inequality



Formerly redlined areas have less **tree cover** today than areas that weren't redlined.

Source: New York Times. How Decades of Racist Housing Policy Left Neighborhoods Sweltering, Plumer and Popovich, 2020 from Hoffman, Shandas, and Pendleton, Climate, 2020

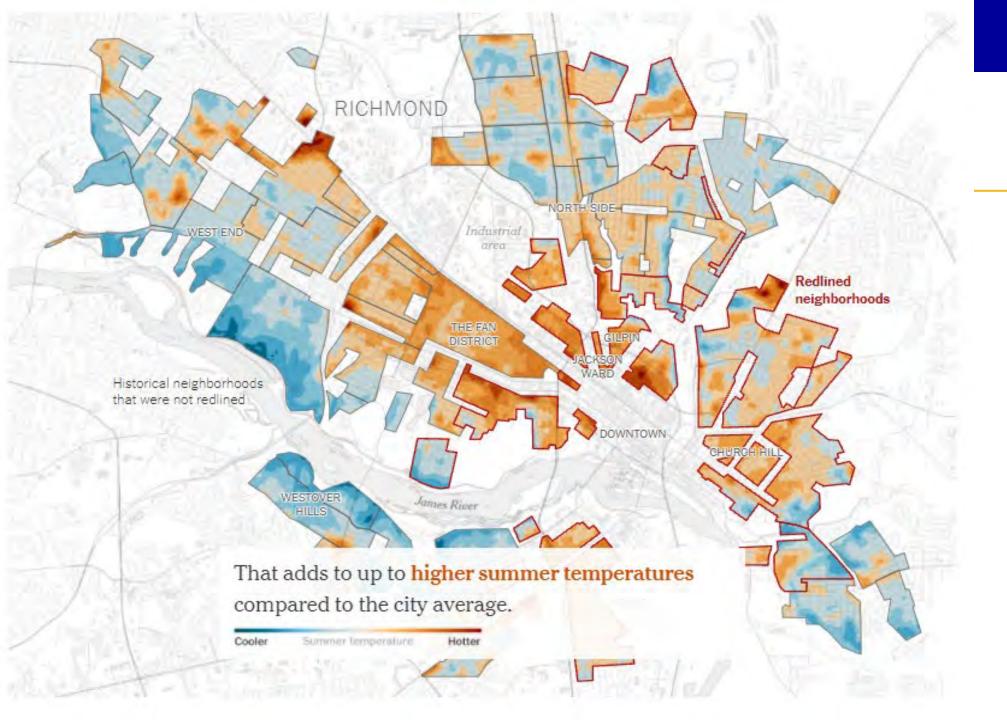
## **OASH**



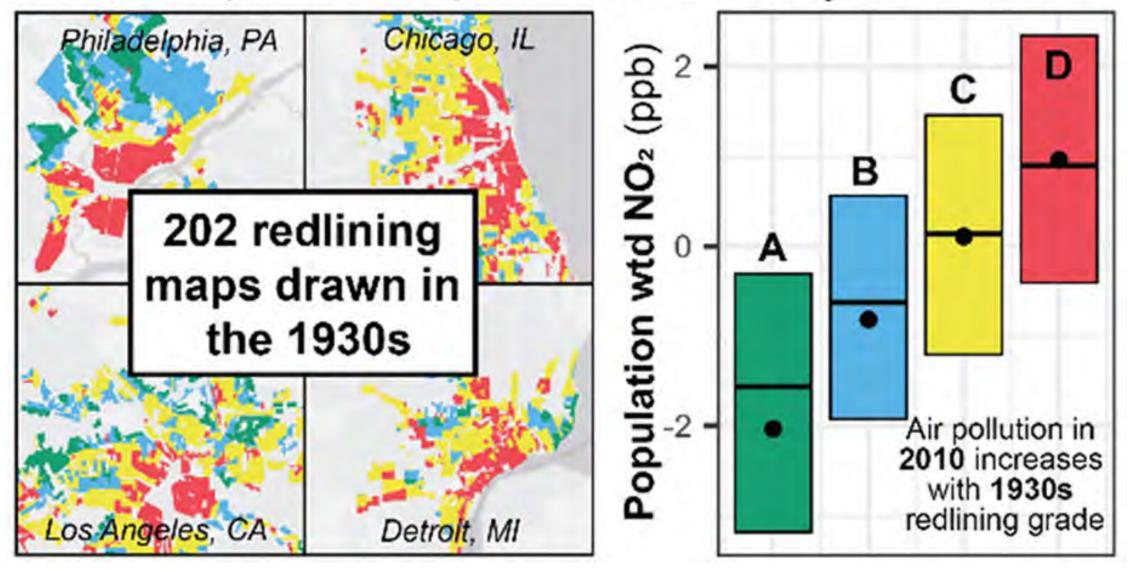
Source: New York Times. How Decades of Racist Housing Policy Left Neighborhoods Sweltering, Plumer and Popovich, 2020 from Hoffman, Shandas, and Pendleton, Climate, 2020

## **OASH**





## Modern air pollution disparities in historically redlined areas



### What does this mean for health care systems?

- Elderly populations
  - Heat-related morbidity, air pollution effects, West Nile Virus and other ID's, Extreme events
- Low-income populations
  - Heat-related morbidity, respiratory diseases from air pollution, molds and pollens, vectorborne diseases (esp. outdoor workers), flooding and extreme events
- People with chronic medical conditions (durable medical equipment)
  - Heat or other weather extremes and loss of electricity in homes
- People with disabilities
  - Heat or other extreme events and ability to shelter, avoid exposures
- All populations
  - Need to improve Social Determinants of Health through infrastructure and other climate change related investments

### Origins of the Office of Climate Change and Health Equity

# E.O. 14008 - "Tackling the Climate Crisis"

- HHS mandates (Section 222(d))
  - ✓Office of Climate Change and Health Equity
  - ✓Interagency Working Group to Decrease Risk of Climate Change to Children, the Elderly, People with Disabilities, and the Vulnerable
  - ✓Biennial Health Care System Readiness Advisory Council





### Office of Climate Change & Health Equity (OCCHE)

Priority 1: Climate & Health Resilience for Most Vulnerable

Priority 2: Climate Actions to Reduce Health Disparities

Priority 3: Health Sector Resilience & Decarbonization



### Resilient Health Systems

- Capturing community and health system vulnerabilities and logging adaptation gaps
- Enhancing the resilience of health systems and communities to climate change effects
- Building on existing networks and plans to develop a national plan for health adaptation

### Low-Carbon Health Systems

- Coordinating Federal health system greenhouse gas accounting and reduction targets
- Partnership with private health sector to develop an action plan for reductions via incentives, technical assistance, policy guidance, applied research, toolkits, training, use of regulatory authorities as needed, etc.



### **Examples of initiatives across the 3 priorities**

# Priority 1: Climate & Health Resilience for Most Vulnerable

- Extreme Heat IWG (launched)
- Direct outreach (regions, states, cities, tribes)
- Expansion of CDC/NIH Climate and Health programs
- Launch of HHS CC and Health Equity WG

# Priority 2: Climate Actions to Reduce Health Disparities

- Climate health and equity measures in SDOH/ELTRR frameworks
- Exploring climate health considerations in HRSA, SAMHSA, IHS facility renovations

# Priority 3: Health Sector Resilience & Decarbonization

- PPP with National Academy of Medicine
- IHS/VA/DoD learning network for EO 14057
- Updating resilience and mitigation tools (ASPR/AHRQ)
- CMS RFIs and potential tech assistance
- Exploring supply chain actions (FDA/CMS)

The OCCHE "Hub": Setting Strategy, Coordinating Action

All HHS Operating Divisions

Private Sector (NAM Collaborative co-chairs) Office of Climate Change and Health Equity

Other
Departments
(EPA, DoE,
FEMA, etc.)

Federal Health Systems Learning Network

### Thoughts on partnerships with OCCHE

### **OCCHE** might:

- Support development and delivery of training on CCHE
- Help identify and connect clinicians to resources to address climate resilience and SDOH
- Connect NHSC staff and members to learning networks

### NHSC and members might:

- Held identify "adaptation gaps"
- Help connect OCCHE to communities and build health resilience narratives
- Conduct pilot interventions be early testers of tools and supports
- Conduct community-based research, esp. implementation research

#### Health and climate: co-benefits Fewer deaths and injuries Indirect benefits from extreme weather events Reduced Reducing climate Less skin cancer climate change also leads from UV radiation to further benefits change Reduced spread of vector-borne downstream: Example interventions diseases to new areas These interventions have benefits both for health and for reducing climate change (also known as mitigation) Produce more renewable renewable energy air quality energy Improve insulation Reduced in homes deforestation Reduced irban areas humidity Reduced Encourage use of and damp air quality livestock lower emission vehicles production 0 10 Promote active transport Less meat Lower consumed emission Reduce solid fuels Fewer vehicles used for cooking cooking fuels Local fruit and Less food from animal sources Less noise Encourage locally produced fruit and veg thebm UK HEALTH ALLIANCE ON Health Designed by: Will Stahl-Timmins Content: Nick Watts benefits Lower rates Lower rates Fewer deaths Less Less Better mental cardiovascular respiratory of cancer of obesity health from extreme Thanks to: Soledad Cuevas disease heat disease **Duncan Jarvies** John Waring © 2016 BMJ Publishing group Lto V40:30 Mar 2016

### Sustainability

### Sustainability and resilience

### Resilience

Lifestyle disease prevention Care closer to home

Low VOC materials Local food suppliers Waste recycling Air quality Health system strengthening
Universal health coverage
Energy, water efficiency
Daylighting
Natural ventilation
Rainwater capture

Solar shading

Risk and disaster
preparedness and planning
Climate-related disease
monitoring
Flood barriers
Elevation
Backup generators



# Screening protocols include structural determinants of health and climate risks

Ex: Food security, water source, housing security and safety, energy security, depression and anxiety

### Health promotion includes health and planetary benefits

Ex: Diet, active transportation and outdoor play, civic engagement

# Scheme for Climate-informed Primary Care

### Care for all children considers and anticipates climate risks

Ex: Children with complex medical conditions and disasters, those participating in sports and extreme heat, children with asthma and allergies and poor air quality and pollen

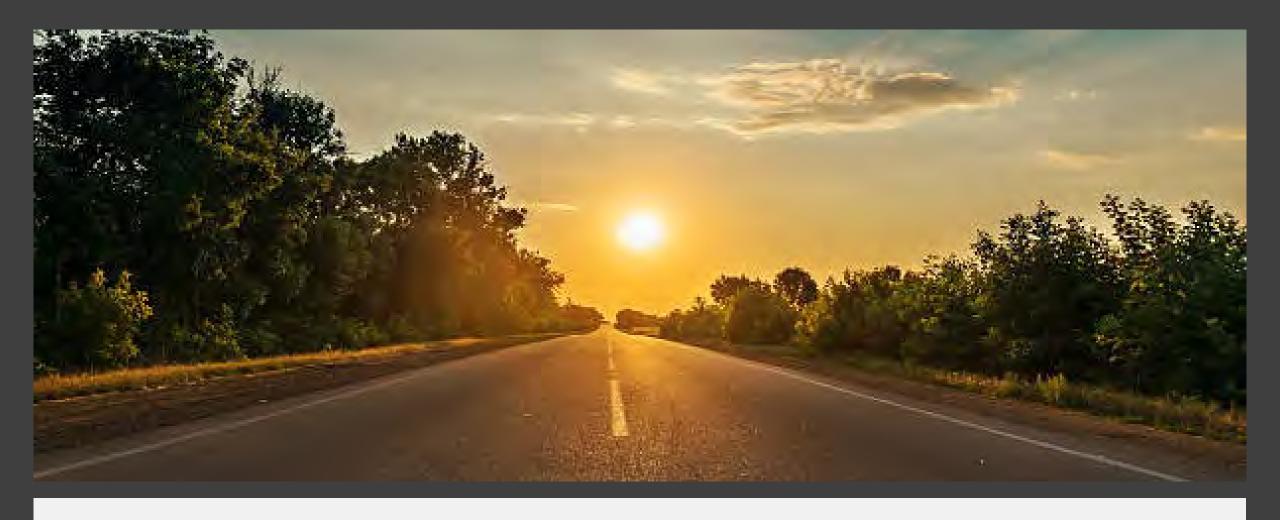
### Anticipatory guidance is informed by climate change

Ex: Never leaving children unattended in vehicles, heat and sun safety, street safety, accessing pubic heatlh alerts, prevention of vector-borne diseases and emerging harms

# Community resource network and referral plans are in place and center patient concerns

Pediatricians can support climate and public health preparedness and adaptation that centers the needs of children, equity and child health.

Fig. Aspects of climate-informed primary care pediatrics.



### In Closing

- Climate change is compounding existing stressors and health disparities
- Populations served by NHSC are among those at greatest risk
- NHSC has a critical role to play in building health resilience to climate change at the community level



# Thank you!

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Visit us online at www.hhs.gov/ocche