

# The NIH Climate Change and Health Initiative

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**SRP Risk-E learning webinar** 





## **Proposed ALL of NIH Initiative on Climate Change and Health**

- Executive Orders Bring Renewed Focus on Climate Change Across Agencies
  - Executive Order 14008 Tackling the Climate Crisis at Home and Abroad
- President's Budget & Congressional Markup
  - President's Budget (\$100M) to NIEHS for CCH Research in Fiscal Year 2023
  - House (\$10M) & Senate (\$50M) Markup
- Seven Institute and Center Directors as NIH Leaders
  - Drs. Bianchi (NICHD), Gibbons (NHLBI), Glass (FIC),
    Gordon (NIMH), Perez-Stable (NIMHD),
    Woychik (NIEHS), and Zenk (NINR)
- Re-energized NIH Working Group co-chaired by NIEHS and FIC





# **Impacts of Climate Change on Human Health**

#### **CHANGES** IN CLIMATE



Increased global temperature



Extreme weather and disasters



Precipitation extremes





Changes in land use and growing

#### **EFFECTS OF CLIMATE CHANGE**



Extreme heat



Air and water pollution



Reduced food and water quality



Changes in infectious diseases and vector transmissions



Increasing

#### **HEALTH IMPACTS**



Heat related illness



Cardiovascular disease, stroke, and other chronic conditions



Injuries and death



Mental and neurological disorders



Zoonotic, vectorand water-borne diseases



Respiratory of and asthma Respiratory diseases

#### **INTERVENTIONS** & STRATEGIES



Early warning and preparedness



Community engagement



Targeted prevention and threat reduction



Education and awareness raising



Adoption and integration

#### SOCIAL, BEHAVIORAL, AND ENVIRONMENTAL DETERMINANTS OF HEALTH



Access to Healthcare



Diversity, Equity, Inclusion, and Accessibility



Poverty & Housing



Immigration/ Migration



Environmental Exposures



Infrastructure



Geography

# **Climate Change Affects Us Unequally**



# **Under-served populations** with health disparities

(Some communities of color; Low-income populations; Low-educational attainment groups; Immigrant groups: Indigenous populations)



#### **Vulnerability by life stage**

(Fetal/pre-natal, infants, young children, pregnant women, elderly)



### **Exposed workers**

(e.g., farmers, construction workers)



#### **Vulnerability associated with** chronic medical conditions

(e.g., diabetes, asthma, cardiorespiratory diseases, psychiatric diseases)



#### **Persons with disabilities**

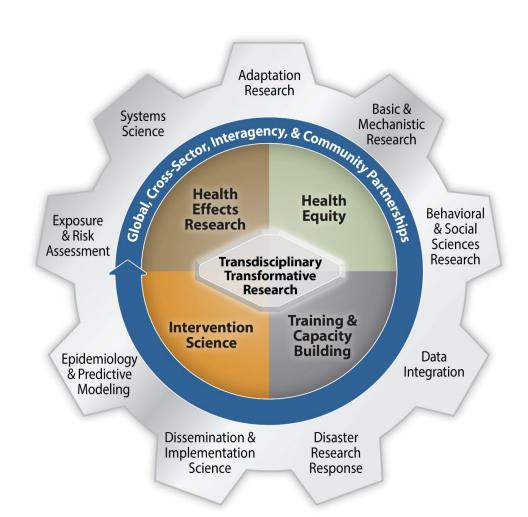


#### **Populations in LMICs**

(Higher rates of existing diseases, malnutrition, and extreme poverty)

# Strategic Framework Guides Future Climate Change and Health Research

- Outlines four core elements
  - Health Effects Research
  - Health Equity
  - Intervention Science
  - Training & Capacity Building
- Goal is to reduce health threats from climate change across the lifespan and build resilience
- Solutions-driven approach
- www.nih.gov/climateandhealth



# NIH Climate Change and Health Initiative: Funding Opportunities

- Climate Change and Health Research Coordinating Center, led by NIEHS. (<u>RFA-ES-22-003</u>). This announcement is soliciting applications from eligible academic institutions to develop a Research Coordinating Center to support the progress of the NIH CCH Community of Practice by managing and supporting current and future CCH research and capacity building efforts.
- Alliance for Community Engagement (ACE-CCH), led by NHLBI. ACE-CH will collaborate in parallel with the NIH-funded Research Coordinating Center (RCC) that is being established to support the development of an NIH-wide CH Community of Practice by managing and supporting current and future CC and health research and capacity building efforts conducting community engaged research.

# NIH Climate Change and Health Initiative: Funding Opportunities

- NIH-wide Notice of Special Interest (NOSIs) released in 2022
  - ✓ 16 ICOs have signed onto 3 NOSI for climate change and health research (NOT-ES-22-006).
  - ✓ 10 ICs have signed on for the Small Business Technology Transfer (STTR) (NOT-ES-22-009) which encourages applications that focus on developing technologies and approaches for climate and health related research.
  - ✓ 12 ICs have signed on for Small Business Innovation Research (SBIR) (NOT-ES-22-010) which encourages applications that focus on the development of innovative tools, technologies, methodologies related to climate and health that will significantly increase the understanding for the complex drivers of adverse health outcomes.
- CCH Small IC Administrative Supplements: <u>NOT-TW-22-003</u>. This funding announcement's goal was to expand the research community to include new researchers from across multiple disciplines both in the U.S and in low-and middle-income countries (LMICs).
  - √ 19 awards supported with funds from NIH/OD, FIC, ORWH, OBSSR

## **Impacts of Climate Change on Human Health and Research Needs**

#### **EXAMPLES OF NEEDED RESEARCH**



What are the new and emerging health risks from climate change?



Who is most at risk?



What health interventions are effective?



Can we predict future health outcomes from climate models?



What health benefits or costs come with climate actions?



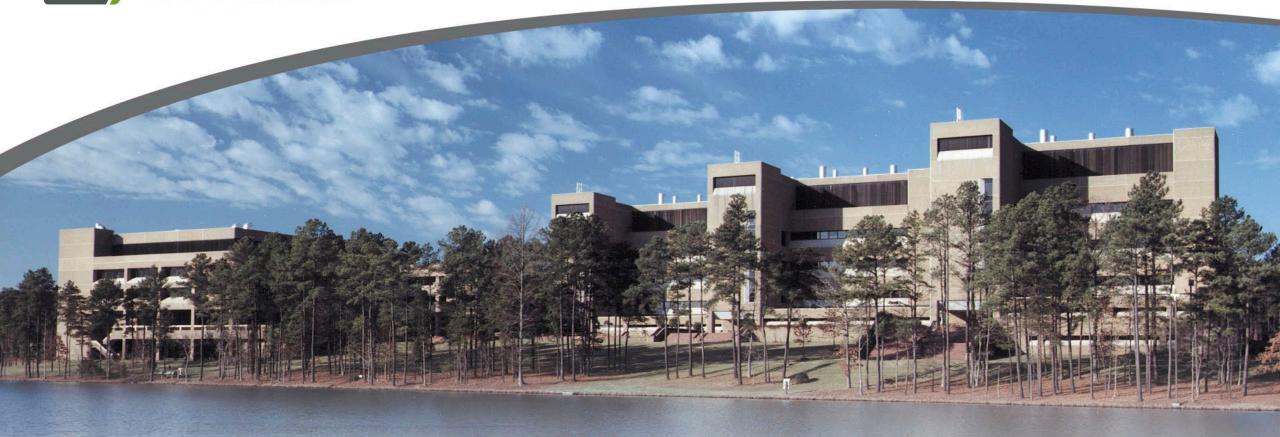
How can disaster warning systems best save lives?



How can health care systems prepare for challenges to providing adequate care?



How can communities best adapt to a changing climate?



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