Climate Program Office Review
May 24-26, 2022

Pre-Recorded Presentation
Supporting Review Activity Area
#4: Integrated Information Systems, Risk Areas Initiative

NIHHIS Overview
Juli Trtanj, NOAA One Health and Integrated Climate Research Lead
Purpose: To inform the panel about the Climate and Health Program’s major activity—The National Integrated Heat Health Information System (NIHHIS)

Context: NIHHIS is an integrated information system housed under the Director’s Office in CPO, and part of the Climate and Health Program. NIHHIS is an integrated approach to providing expertise and decision-support services, on multiple time scales, designed to build resilience and reduce heat-related illness and death.
About NIHHIS

- **NIHHIS** was established in 2015 under the National Security Council Infrastructure Working Group and launched via White House announcement.

- Present focus stems from the NOAA Strategic Plan, CPO’s Climate and Health Program Strategy, and the NOAA One Health Strategy.

- H.R.5296 /S.2510 - Preventing HEAT Illness and Deaths Act of 2021 introduced in 2021, would formalize NIHHIS and authorize $200M.

- NIHHIS is a covered program under the Justice40 Initiative.

- CPO provides ~$850K/year for labor and program activities.

- 3 NIHHIS Staff members (2 CPO, 1 UCAR).

- NIHHIS consists of federal partners and interagency working groups, state, local, tribal and non-governmental partners, academic institutions, and more.
The program provides five key functions in service to the nation:

| Define demand through sustained relationships to understand context and need | Co-develop and provide integrated information across time scales | Understand, observe, monitor, surveil, forecast, and predict | Communicate and engage across agencies, NGO, academia and private sector | Adaptive actions: co-learning, sharing information, fostering equitable and just practices |

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- **Define demand**: Through sustained relationships to understand context and need.
- **Co-develop and provide integrated information**: Across time scales.
- **Understand, observe, monitor, surveil, forecast, and predict**.
- **Communicate and engage**: Across agencies, NGO, academia, and private sector.
- **Adaptive actions**: Co-learning, sharing information, fostering equitable and just practices.
Extreme Heat Risk Initiative Awards:

- Heat Plan Integration for Resilience Scorecard
  University of Arizona

- Seeing Heat Risk Through an Equity Lens
  Johns Hopkins University

- Urban Climate Science for Heat Decision-Making
  University of Texas at Austin

- Exposure-based Extreme Heat Vulnerability Mapping
  University of Vermont

- Improving Temperature Simulations Near Water
  Desert Research Institute

Key Accomplishments (FY17-21)

Urban Heat Island Mapping

NOAA Urban Heat Island Mapping Campaigns: All Locations, 2017-2021

Map showing urban heat island mapping campaigns across the United States. Locations include King County/Seattle, WA; Portland, OR; San Francisco, CA; Santa Clara, CA; San Jose, CA; San Diego, CA; Kansas City, MO; Cincinnati, OH; Richmond, VA; Richmond, IN; Baltimore, MD; Washington, DC; Roanoke, VA; Durham, NC; Raleigh, NC; Charleston, SC; Harris County/Houston, TX; Fort Lauderdale, FL; Miami, FL; and others.
NIHHIS Urban Heat Island Mapping Campaigns are citizen science, community led projects that inform decision-makers and actions:

Clockwise from upper-left:

- 10,000 Trees Honolulu (NGOs)
- Houston Resilience Plan (city & county government)
- Worcester Polytechnic Institute Bachelor of Science Qualifying Student Project (educational institutions)
- Afternoon temperature report from the 2021 NYC UHI campaign
NIHHIS Interagency Working Group delivers information and products to decision makers across all timescales. Accomplishments include:

- Developed the NIHHIS Portal (left)
- Led 2 consecutive major national heat season communications campaigns
- Hosted 2 workshops and developed a paper with OSHA, NIOSH, EPA, NOAA, DOD and the Korey Stringer Institute on activity modification guidelines

Activity modification in heat: critical assessment of guidelines across athletic, occupational, and military settings in the USA

Key Institutional Accomplishments (FY17-21)

- Started drafting 5-year NIHHIS strategic plan (2021)
- Developed the Climate and Health Strategy for CPO
- Novel partnerships with private sector (ESRI, Global Cool Cities, Extreme Heat Resilience Alliance, Wellcome Trust, PAHO)
- New federal partnerships (NPS, VA)
- Briefings to Congress

Leadership and presence in the White House Interagency Group on Extreme Heat
Additional leadership includes:
- Launched Global Heat Health Information Network Workshop
- Part of the Heat & COVID-19 task force
- Presence in President’s Task Force for Environmental Health
- International outreach in India, Chile, Grenada, Public Health England, Germany
- AMS & AGU conferences
Strategic Lookahead

- Continue to Understand User Context and Define User Needs
- Increase Support Planning, Preparedness, & Response
- Co-Develop Products and Tools Across Timescales (Weather to Climate)
- Develop Strategic and Implementation Plan
- Enhance NIHHIS Partner Network
- Enhance Solutions with Foundational and Applied Research
- Improve Operational Monitoring, Observation, & Forecasting
- Communicate, Educate, and Build Capacity
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Thank you!

NIHHIS Portal: https://nihhis.cpo.noaa.gov/

National Integrated Heat Health Information System Youtube Page

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