Welcome!

Three Minute Thesis Webinar on NOAA’s Extreme Heat Efforts
June 24, 2022
Three Minute Thesis Webinar Outline

Welcome and Overview
National Heat Tools & Messaging - Kim McMahon
The New Normal: People Affected By Heat - Jared Rennie
National Integrated Heat Health Information System - Morgan Zabow

Audience Questions

NOAA’s Urban Heat Island Mapping Campaign - Hunter Jones
Extreme Heat Community Engagement & the HeatRisk Service - Paul Iñiguez
Building Equitable Resilience to Extreme Heat Pilot Projects – Nicole Fernandes (on behalf of Aja Szumylo)

Audience Questions

Global Forecasts of Marine Heatwaves - Mike Jacox
Diving Into the 3rd Global Coral Bleaching Event - Derek Manzello
Clam Bake? Impacts from the Summer 2021 Heatwave on Washington Shellfish - Teri King

Audience Questions

Webinar Concludes / Brief Survey
National Heat Tools & Messaging

Kim McMahon
NOAA National Weather Service Heat Tools & Messaging

**Heat Index**
https://digital.mdl.nws.noaa.gov/

Heat Index = Heat stress in context for general public.

**Wet Bulb Globe Temperature**
https://digital.mdl.nws.noaa.gov/

WBGT = Heat stress in context for healthy, active outdoor communities.

**Western Region HeatRisk Prototype**
https://www.wrh.noaa.gov/wrh/heatrisk/

HeatRisk = Heat forecasts in climatological context with CDC-based health impact messaging.

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**Partnerships and Collaborations**

- OSHA messaging in NWS heat products
- Co-branded Graphics
- Joint Safety Campaigns (common hashtags)

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**Messaging**

**Targeted and Actionable**

- Seasonal Safety Campaigns
- Building Equity Awareness
- Hub of information and Calls-to-Action
  - weather.gov/safety/heat
  - www.weather.gov/safetycampaign

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**Accurate, Reliable, and Relevant Forecasts** + **Appropriate and Effective Messaging** = **Actions Taken**
The New Normal: People Affected by Heat

Jared Rennie
The New Normal: People Affected By Heat

Jared Rennie
NOAA NCEI
Jared.Rennie@noaa.gov
@jjrennie
National Integrated Heat Health Information System

Morgan Zabow

Regional Collaboration Network
Improving NOAA's service to the Nation through collaboration
National Integrated Heat Health Information System (NIHHIS)

NIHHIS vision: A nation free from heat-related illness and death

Understand decision context

Co-Develop Products and Tools

Improve Observations and Predictions

Support Planning and Response

Enhance Solutions with Research

Communicate and Build Capacity
Questions?

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NOAA’s Urban Heat Island Mapping Campaign

Hunter Jones
3-minute Thesis on Citizen Science Urban Heat Island Mapping – Hunter Jones
Extreme Heat Community Engagement & the HeatRisk Service

Paul Iñiguez
Extreme Heat Community Engagement & the HeatRisk Service

Paul Iñiguez, NOAA/NWS Phoenix, AZ
paul.iniguez@noaa.gov

Heat-related deaths reach record

High temperatures a factor in almost 500 deaths in 2020

Ian James, Arizona Republic
USA Today Network

The number of heat-related deaths in Arizona soared to a new high last year as change. “We’ve seen very significant warming take place. And so as those temperatures go up, we have more health impacts,” said Paul Iñiguez, science and operations officer for the National Weather Service in Phoenix. Comparing the extreme heat of last year to projections of future temperatures, he said, “It is essentially what you would expect a typical summer or a typical year to be in just a couple of decades.”

Examining heat-related deaths that occurred indoors, Iñiguez found that in 15% of those deaths, officials determined the victims had no air conditioning. And of those who did have air conditioning, it wasn’t working in 60% of cases. He said more assistance is needed to help people in such situations, and gaps between programs need to be filled.

“Part of that gap happens because they’re not eligible for many of our solutions that we have,” Iñiguez said. “They’re not eligible for LIHEAP because they are in structures that are on wheels and they’re not considered homes according to the federal guidelines.”


https://www.wrh.noaa.gov/wrh/heatrisk/

https://vlab.noaa.gov/group/heat-risk

Average Percent of 2020 ER Visits in Maricopa Co. by HeatRisk

https://www.wrh.noaa.gov/wrh/heatrisk/
https://vlab.noaa.gov/group/heat-risk
Building Equitable Resilience to Extreme Heat Pilot Projects

Nicole Fernandes
(on behalf of Aja Szumylo)
Building Equitable Resilience to Extreme Heat Pilot Projects

- Roundtables in Phoenix, AZ + Las Vegas, NV; Miami, FL + Charleston, SC

- Pilot proposal developed working closely with OAR Climate Program Office, NOS Office of Response & Restoration, NWS WFOs, NESDIS Climate Services Regional Directors

- **Goal**: Build heat resilience through community monitoring, improved coordination and communication, and intervention

- **Four phases**: heat monitoring, extreme heat tabletop exercise, recommendations, interventions and remediations

- Pilot projects adapted to local needs and capacity, augmenting existing work as reasonable
Questions?

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Global Forecasts of Marine Heatwaves

Mike Jacox
Marine heatwaves can dramatically alter ocean ecosystems and impact communities and economies.

Forecasts provide advance warning of marine heatwaves to enable proactive decision making.

Forecasts now available online: https://psl.noaa.gov/marine-heatwaves

Diving Into the Third Global Coral Bleaching Event

Derek Manzello
Diving Into the 3rd Global Coral Bleaching Event

2014-2017 Heat Stress

Indian Ocean

April 2015

Not only corals bleach...

Restoration

Image credit: Coral Restoration Foundation

Florida Keys

Sept 2014
Clam Bake? Impacts from the Summer 2021 Heatwave on Washington Shellfish

Teri King
It was really hot at a bad* time

Water level

Air temperature

Raymond et al. 2022

DISASTER ASSISTANCE
ELAP - Emergency Assistance for Livestock, Honeybees and Farm-Raised Fish Program

Teri King, wsgcanal@uw.edu
Questions?

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