
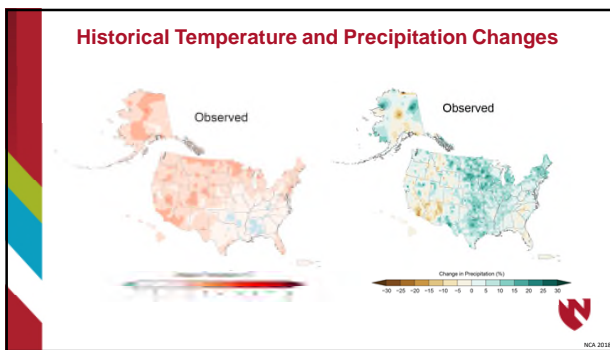


The Role of Climate on Public Health

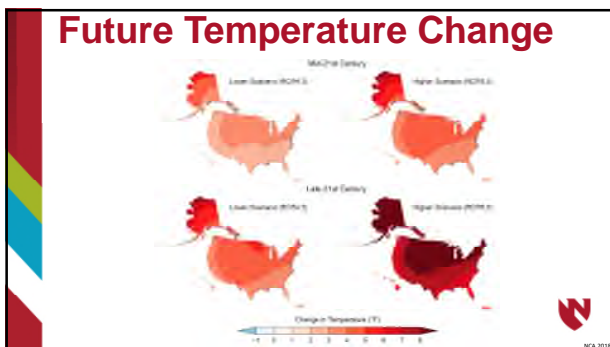
Jesse E. Bell, PhD
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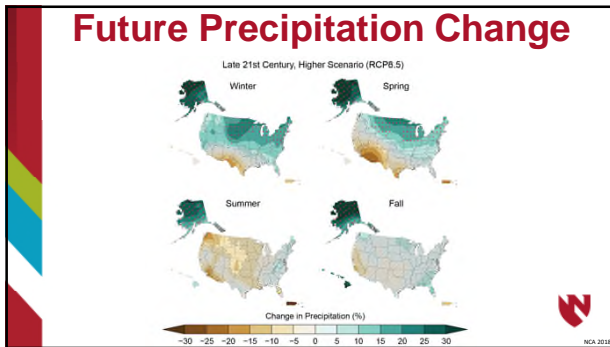
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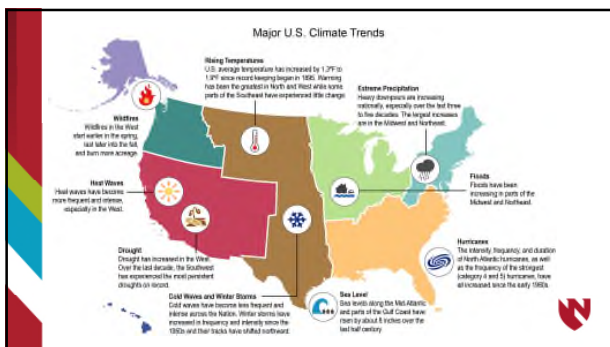
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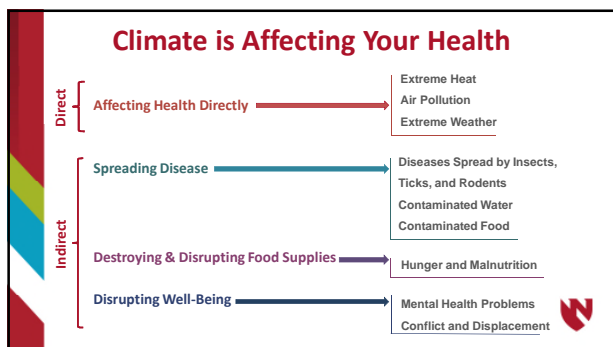


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Long History Between Climate and Health

- Hippocrates wrote about epidemics in 400 B.C.E. and noted the change in weather
- 1814 Dr. James Tilton, Surgeon General of the Army, directed all hospital surgeons to keep weather records

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Executive Summary

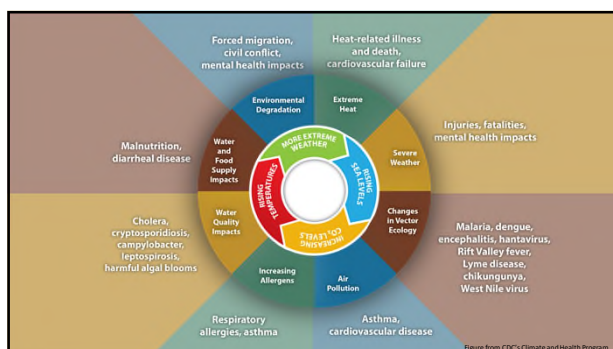
Climate change is a significant threat to the health of the American people.

Every American is vulnerable to the health impacts associated with climate change

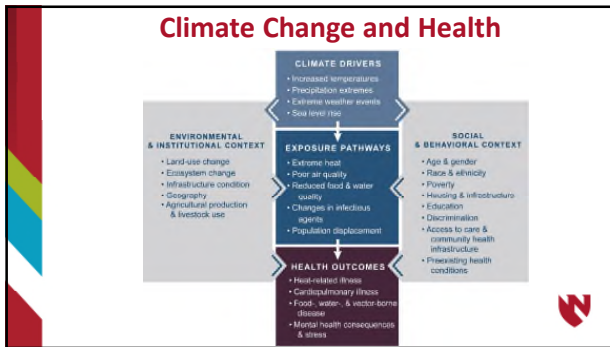
Climate change threatens human health and well-being in the United States. The U.S. Global Change Research Program (USGCRP) Climate and Health Assessment has been developed to enhance understanding and inform decisions about this growing threat. This scientific assessment, called for under the President's Climate Action Plan, is a major report of the sustained National Climate Assessment (NCA) process. The report responds to the 1990 Congressional mandate to assist the Nation in understanding, assessing, predicting, and responding to human-induced and natural processes of global change. The agencies of the USGCRP identified human health impacts as a high-priority topic for scientific assessment.

The purpose of this assessment is to provide a comprehensive, evidence-based, and, where possible, quantitative estimation of observed and projected climate change related health impacts in the United States. The USGCRP Climate and Health Assessment has been developed to inform public health officials, urban and disaster response planners, decision makers, and other stakeholders within and outside of government who are interested in better understanding the risks climate change presents to human health.

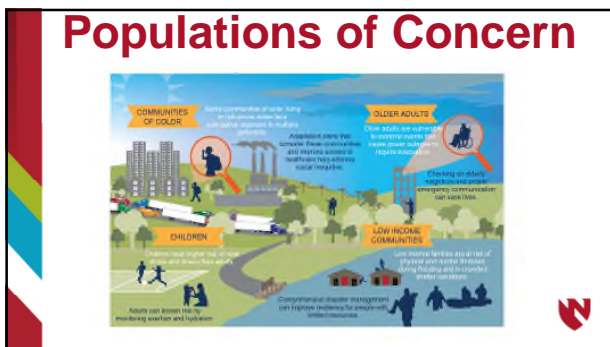
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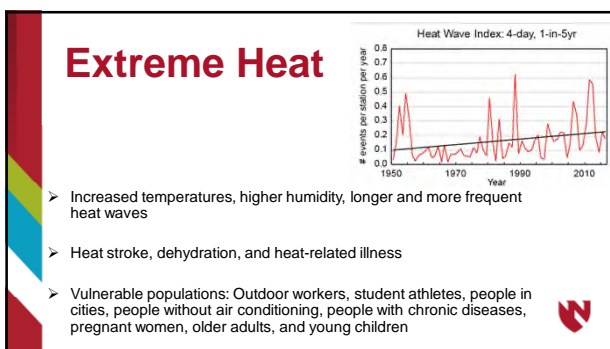
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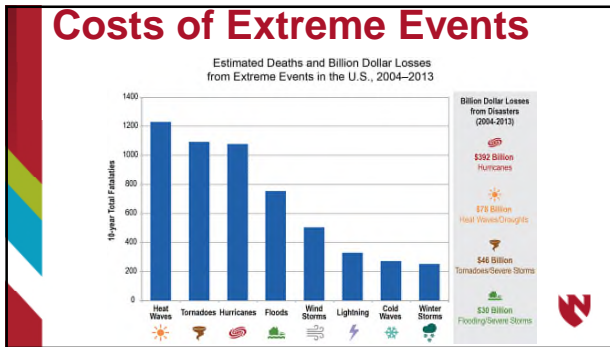
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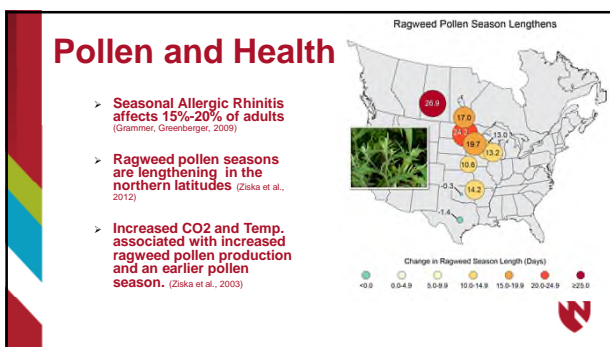
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Air Quality

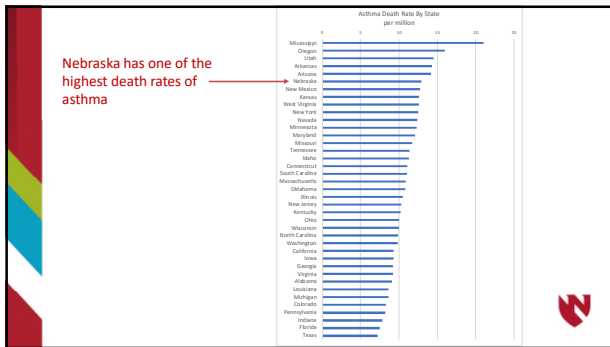


- Increased wildfires, smog, pollen, and mold
- Asthma, respiratory, and allergy issues
- Vulnerable populations: People with heart and respiratory conditions such as heart disease, asthma, or chronic lung disease

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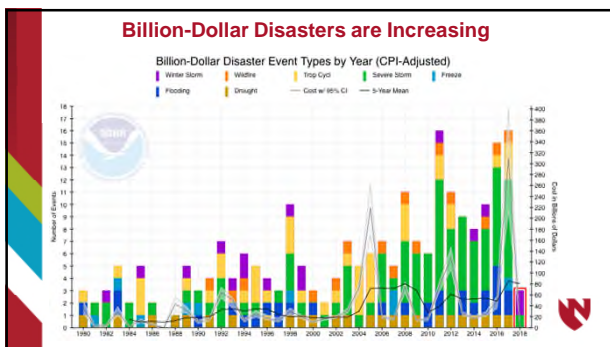
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Extreme Weather



- Increased frequency and severity of heavy downpours, floods, droughts, and major storms
- Injury, illness, displacement, and death
- Vulnerable populations: People who lack access to evacuation routes and people who can't use stairs when elevators are out of service, people in wheelchairs, older adults, the poor, and people with disabilities, particularly if they are unable to access elevators and evacuation routes

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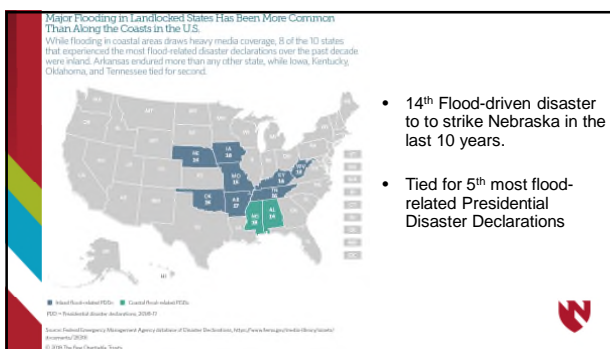
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Spreading Disease: INSECTS, TICKS, AND RODENTS

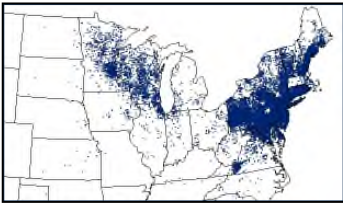



- Higher temperatures, changes in rain patterns, and disrupted ecosystems
- Lyme disease, West Nile disease, etc.
- Vulnerable populations: People who spend more time outdoors in places where these insects and other disease-carriers live




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Lyme Disease Spread 1996 to 2016





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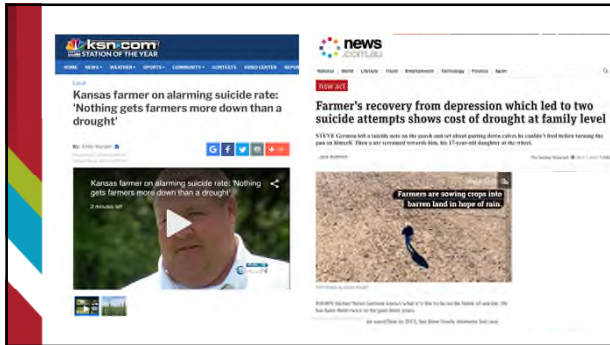
MENTAL HEALTH PROBLEMS



- Increased frequency and severity of extreme weather events
- Stress, depression, anxiety, PTSD, and suicidal thoughts
- Vulnerable populations: Children, older adults, pregnant and postpartum women, people with mental illnesses, the poor, homeless people, first responders, and people who rely on the environment for their livelihood



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Closing thoughts

- Climate Change is a Significant Health Threat
- All people are vulnerable... some more than others
- Costs are Increasing
- Multiple relationships between climate and health
- Lots to be gained by combining expertise
- Multiple opportunities to address this issue

The complex block contains a list of six bullet points under the heading "Closing thoughts". To the right of the list are two small images. The top image shows a doctor in a white coat examining a young child. The bottom image shows a person walking down a dirt path in a field. A red logo is visible in the bottom right corner.

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