

Drought and Public Health: A Roadmap for Advancing Engagement and Preparedness

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Drought and Help Roadmap

Drought and Public Health:

A Roadmap for Advancing
Engagement and Preparedness



Partnership between National Integrated Drought Information System (NIDIS) and University of Nebraska Medical Center (UNMC)



Culmination of public health engagement efforts from 2019-2022



Purpose: Inform and direct future efforts and investments in drought and public health



Document prepared by the National Integrated Drought Information System (NIDIS) in partnership with key stakeholders.

National Drought and Health Strategic Roadmap

Two-Fold Purpose

- Assess needs and gaps
- Convene stakeholders

Approach

- National Drought and Health Summit
- 5 Regional Drought and Health Workshops
- 16 Health Department Interviews



Tools and Resources for Drought and Health



Partnership and Collaboration



Communication and Outreach



Interdisciplinary Research and Applications



Planning and Preparedness

Partnership and Collaboration



Build community of practice



Expand public health representation at drought-related meetings



Increase adoption of early warning systems



Incorporate drought into vulnerability and Community Health Needs Assessments (CHNAs)

Communication and Outreach



Develop impact-based communication resources



Tailor communication tools for vulnerable populations



Increase drought and health resources for health departments



Utilize federal agency websites to share resources

Interdisciplinary Research and Application



Improve
understanding of
drought indicators



Conduct a
comprehensive
review of past
drought events



Improve
understanding of how
drought impacts
private wells



Address barriers to
data access

Planning and Preparedness



Incorporate health impacts into drought vulnerability assessments



Utilize tabletop exercises for drought events



Engage with tribal nations

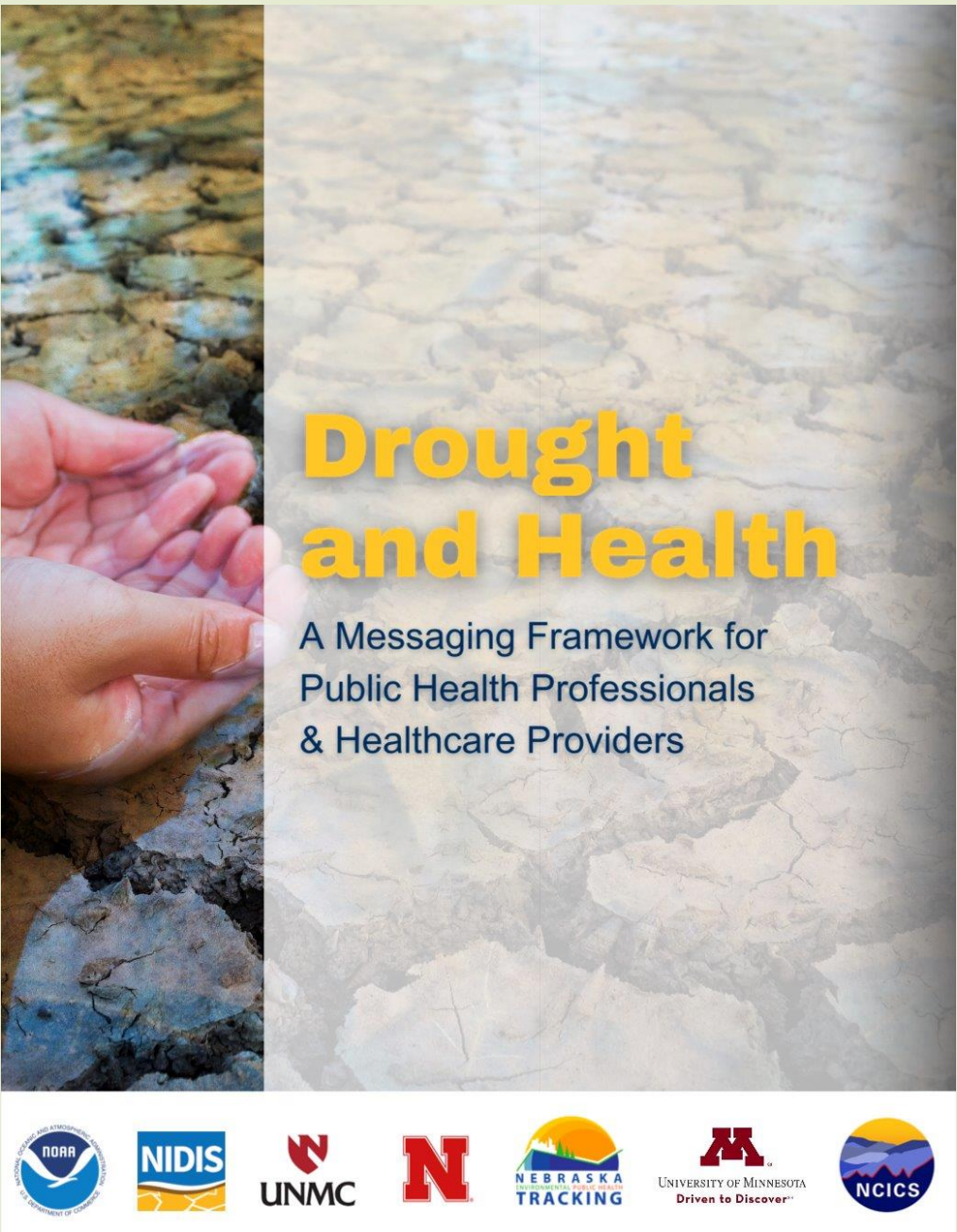


Create sample drought and health questions for community health needs assessments

Outcomes

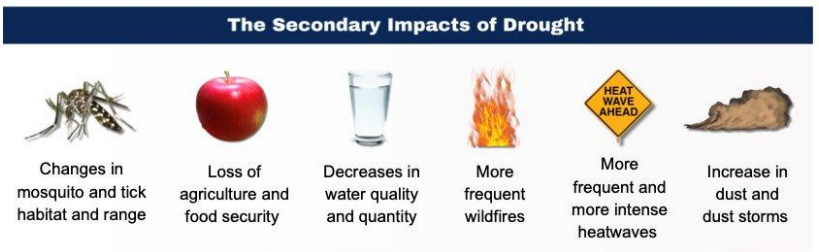


Drought and Health Messaging Framework



The Health Impacts of Drought

Drought can have multiple impacts on public health. As a drought event occurs, changes in the environment can cause secondary impacts to emerge. Secondary impacts of drought can include changes in mosquito and tick habitats, loss of agriculture and food stability, decreases in water quality and quantity, more frequent wildfires, more frequent and intense heatwaves, and increased dust and dust storms. These impacts can happen over both short and long periods of time.



Each of these secondary impacts are associated with several negative health outcomes and one or more of these can increase the risk of 1) negative mental health outcomes (ex: depression, anxiety, and suicide), 2) infectious diseases (ex: West Nile virus & Lyme disease), 3) heat-related illnesses (ex: heat stroke and heat exhaustion), 4) respiratory illnesses (ex: exacerbation of asthma symptoms and hospitalizations), 5) gastrointestinal illness (ex: Vibrio vulnificus & E. coli), 6) injuries, 7) hunger or famine, and 8) allergy-related illnesses. It is important to note that environmental and socioeconomic factors can affect the severity and risk of each health outcome.



The Stages of Drought

Drought is categorized into five severity-based stages. While different geographic locations face conditions specific to their region during each drought stage, there are certain drought stage characteristics that apply to all locations. See the [Drought Impacts by State and U.S. Drought Monitor Category](#) tool for more detailed information about drought stages specific to your location.

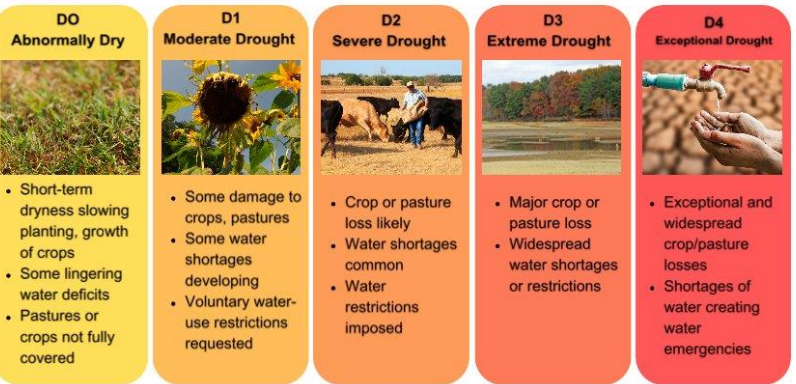


Figure 2: The Stages of Drought, adapted from NIDIS Drought Impacts, www.drought.gov/impacts#impacts-table

How do I know what stage of drought my area is experiencing?

Knowing what stage of drought your area is experiencing will help you tailor your response and messaging to the public. You can determine this quickly using the following sources:

- 1) The [County Drought Information](#) tool from the National Integrated Drought Information System (NIDIS), which will give a county-level summary of drought conditions in your area.
- 2) The U.S. Drought Monitor at www.droughtmonitor.unl.edu.
- 3) Your [state climatologist's](#) office

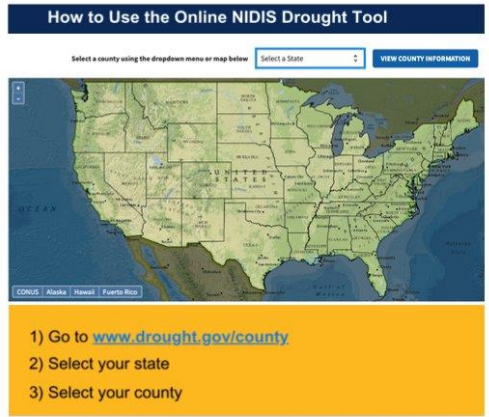


Figure 3: Image from NIDIS County Drought Information, www.drought.gov/county

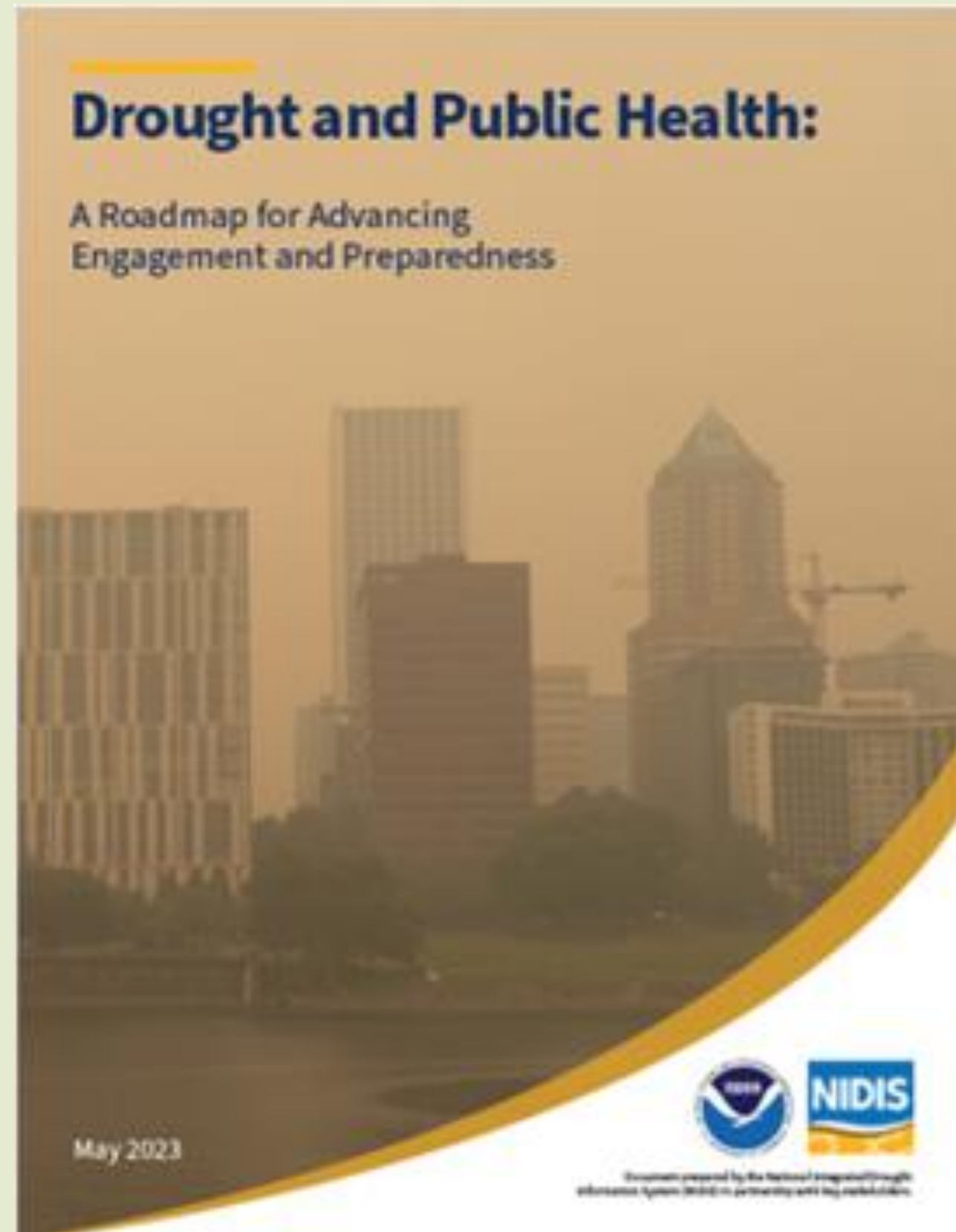


Summary

NOAA's National Integrated Drought Information System (NIDIS) supported the first comprehensive assessment of drought and health.

Intended Outcomes of Roadmap:

- Strengthen the linkages between drought and public health communities to identify opportunities for NIDIS to engage in drought-health partnerships and alliances
- Continue to grow and coordinate a team of national and regional drought and health partners
- Develop regional public health partnerships through NIDIS's regional Drought Early Warning Systems (DEWS) to help inform the creation of communication tools and efforts on drought impacts



Thank you!