

# Developing Speciality-Specific Patient Guidance for Heat: A Peer Review Workshop



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The Journal  
of Climate Change  
and Health

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# Developing Approaches to Address Climate Hazards in Frontline Clinics

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# Funding, Disclosures, & Collaborators

- Funding for projects described in this talk was provided by Biogen and Johnson & Johnson. No products from either company were tested or are discussed in this presentation.
- Project components are being developed in collaboration with AmeriCares, Climate Central, and collaborating primary care clinics and organizations.




# Patient-centered climate resilience for frontline clinics

- Multi-year collaborations between Harvard Chan C-CHANGE and AmeriCares and Climate Central
- Foundational support from Biogen
- Innovative **resources tailored to the needs of frontline clinics**, inclusive of patients, providers and administrators
- **Patient-centered** approach that defines actions to protect health of individual patients.
- For more on this approach, see:
  - Bernstein AS, Stevens KL, Koh HK. Patient-Centered Climate Action and Health Equity. JAMA. 2022 Aug 2;328(5):419-420.
  - <https://jamanetwork.com/journals/jama/article-abstract/2794469>



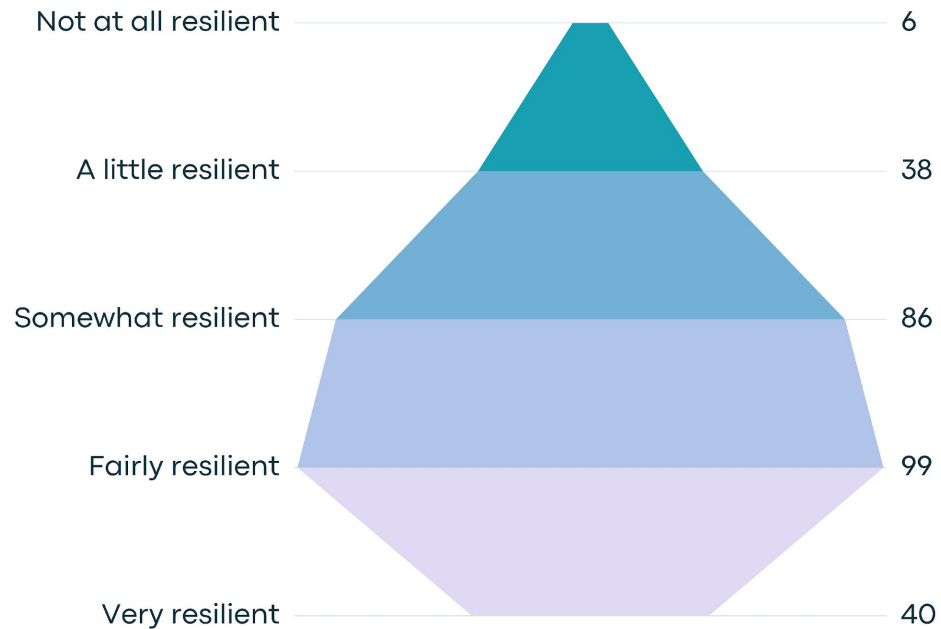
Safety net health centers provide care to at-risk populations, may have limited resources available for resilience, and extreme events made more likely by climate change threaten their ability to care for patients.



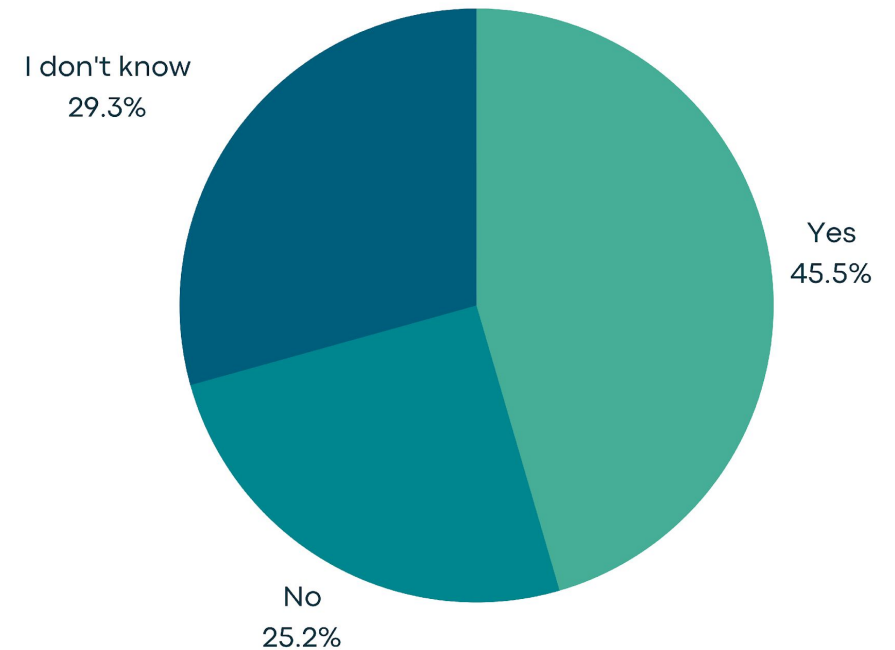
Puts adaptation and resilience information and resources in the hands of those who are impacted.



# Climate Readiness Self-Assessment: US Clinics

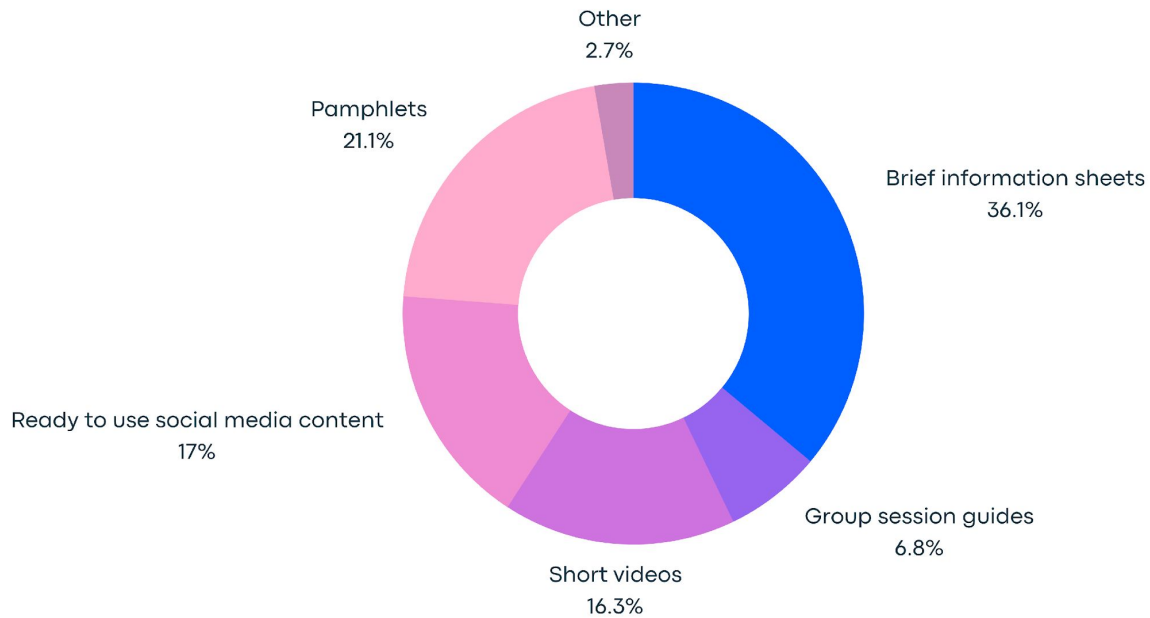


Question: How resilient is your clinic to extreme weather events?  
(Sample size: 269)

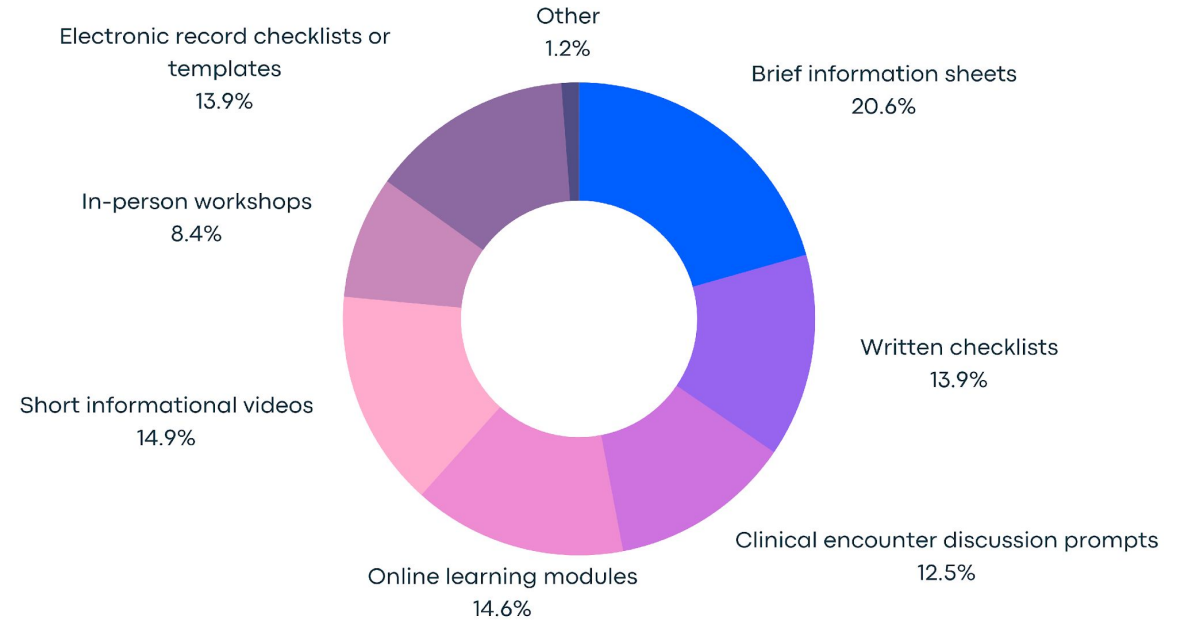


Question: Has the potential risk or actual impact of extreme weather events on your clinic increased operational expenses?  
(Sample size: 266)

# Climate Readiness Education Needs: US Clinics



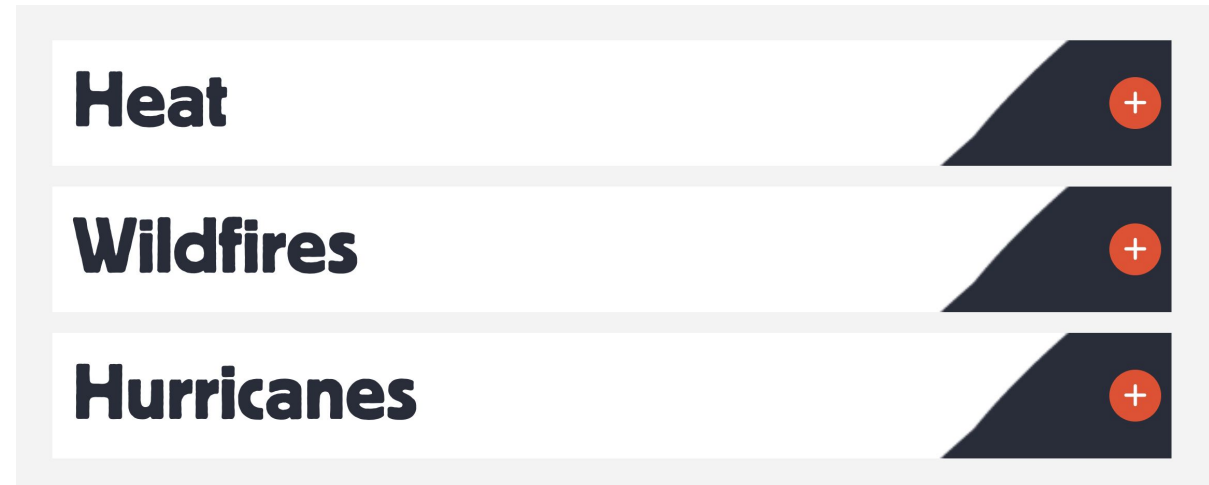
Question: For climate and health education, which of these tools will be most useful for patients?  
(Sample size: 130)



Question: For climate and health education, which of these tools will be most useful for clinic staff?  
(Sample size: 130)

# Climate Readiness Pilot Intervention: Toolkits for Clinics

- Evidence-based
- Available online for free or open-source
- Guidance for specific users
  - Patients, providers, administrators
- Guidance for specific hazards
  - Heat, hurricane, fire, flood
- Implementation assessment, validation, and end-user feedback solicitation are ongoing



## Providers

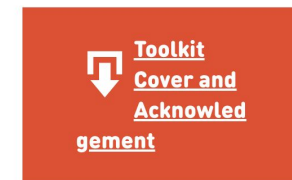
- [Establishing a Hurricane Action Plan](#)
- [Hurricanes and Health](#)

## Patients

- [Hurricane Action Plan](#)
- [Hurricane Tip Sheet](#)









## Administrators

- [Hurricane Communications Templates](#)
- [Hurricane Alert Plan](#)
- [Hurricane Immediate Actions Checklist](#)
- [Facility Repair and Re-Entry After Hurricanes](#)



# Heat Toolkit

## Providers

-  [CKD, ESRD, and Heat](#)
-  [COPD, Asthma, and Heat](#)
-  [CVD and Heat](#)
-  [Dementia and Heat](#)
-  [Diabetes and Heat](#)
-  [Mental Health Disorders and Heat](#)
-  [MS and Heat](#)
-  [Pregnancy and Heat](#)
-  [How to Establish a Heat Action Plan](#)
-  [How to Access Weather Alerts](#)



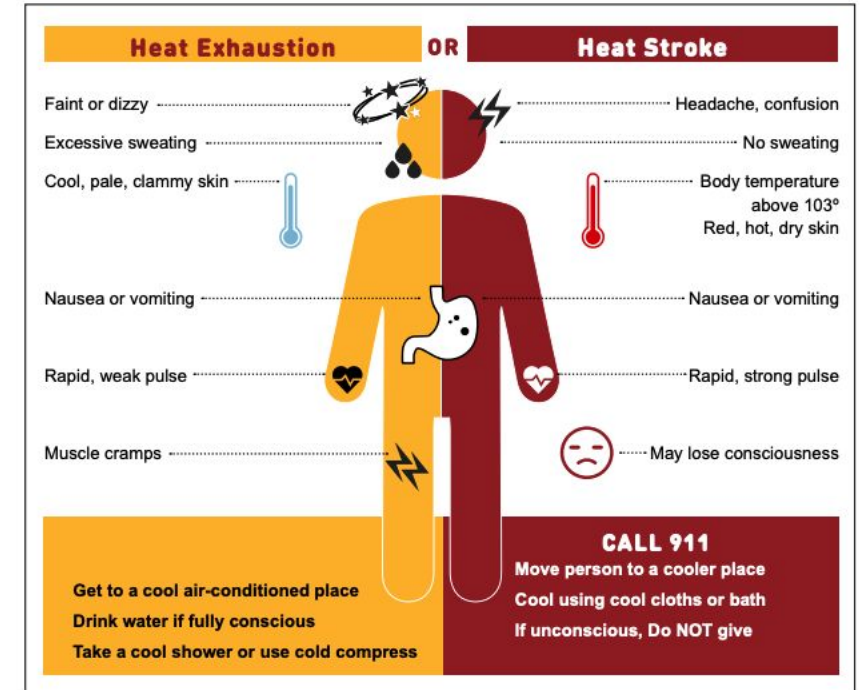
## Patients

-  [Heat Tip Sheet – General](#)
-  [Heat Tip Sheet – CKD, ESRD](#)
-  [Heat Tip Sheet – COPD, Asthma](#)
-  [Heat Tip Sheet – CVD](#)
-  [Heat Tip Sheet – Dementia](#)
-  [Heat Tip Sheet – Diabetes](#)
-  [Heat Tip Sheet – Mental Health Disorders](#)
-  [Heat Tip Sheet – MS](#)
-  [Heat Tip Sheet – Pregnancy](#)
-  [Heat Action Plan – General](#)
-  [Heat Action Plan – COPD, Asthma](#)

## Administrators

-  [Heat Alert Plan Guidance and Checklist](#)
-  [Health Center Power Outage Guidance](#)
-  [Extreme Heat Operational Guidance](#)
-  [Extreme Heat Year-Round Guidance](#)
-  [Extreme Heat Facility Preparedness Guidance](#)
-  [Extreme Heat Immediate Response Checklist](#)
-  [Extreme Heat Communications Templates](#)
-  [Long-Term Climate Resilience and Sustainability](#)

8. Know the signs when your body is telling you it's too hot. See the figure below for what to do when your body gets too hot.



Adapted from the National Weather Service and U.S. CDC

9. Complete a Heat Action Plan before the weather gets hot outside. Ask your provider to review the Heat Action Plan handout at your next appointment.



# Project Milestones

## Needs Assessment:

- Engaged clinics in 47 states and Puerto Rico
- Survey responses from 495 participants
  - 40% administrators
  - 30% clinical staff

## Toolkit Development:

- First draft completed late 2022
- Iterative development and updates ongoing

## Implementation Assessment

- Worked with 19+ clinics to test implementation during 2023
- Analysis of 28 semi-structured interviews is ongoing

## Toolkit Improvement & Revision:

- Integrate expert review, focus group findings, and implementation assessment results to inform revisions
- Working groups running through late spring of 2024

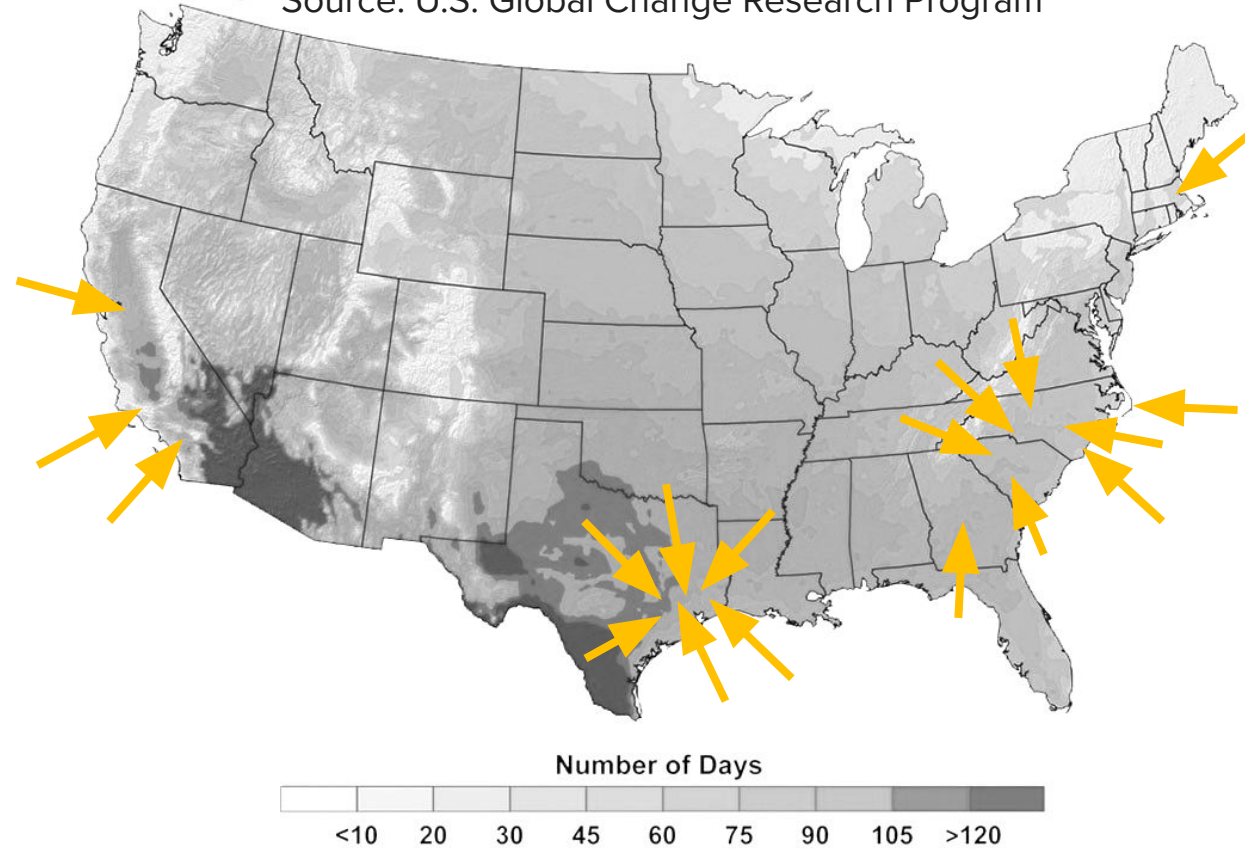


# Pilot Clinic Locations

Number of days above 100 degrees by 2100 if greenhouse gas emissions continue to increase unabated.

Source: U.S. Global Change Research Program

Toolkit  
Pilot



# Next Steps

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- Analysis of semi-structured interviews with clinic staff who implemented the climate resilience toolkit
- Update the toolkit and heat alerts to reflect recommendations and feedback from focus groups, semi-structured interviews, and expert review
  - Hazard specific working groups being convened this spring
- Develop toolkit resources for other settings in collaboration with regional experts
  - Philippines
  - Cyprus



# Today's Exercise

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- Review the patient-facing materials for dangerous heat
  - Talk with your group about what is effective and what can be improved
  - Think about potential limitations or barriers to this approach, and what could be done to address these
  - Share your thoughts!
- Feedback survey is online via QR code at left
  - Paper version is on on your tables

## Toolkit Materials:

<https://www.americares.org/what-we-do/community-health/climate-resilient-health-clinics/>

