

CLIMATE AND HEALTH ADAPTATION PLAN | 2017

Public Health Guidance for the State of Arizona



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SUGGESTED CITATION

Roach M, Barrett E, Brown HE, Dufour B, Hondula DM, Putnam H, Sosa B. 2017. *Arizona's Climate and Health Adaptation Plan*. A report prepared for the United States Centers for Disease Control and Prevention Climate-Ready States and Cities Initiative.

ACKNOWLEDGEMENTS

The authors thank the many partners across the state of Arizona who have contributed ideas and participated in discussions that helped form the content of this plan. In particular, perspectives shared by attendees of the June 2016 Extreme Weather and Public Health workshop (Tempe, AZ) helped shape the plan. We also gratefully acknowledge the following partners who helped revise the document and/or contributed content for the Arizona Adaptation Highlights features: Vjollca Berisha, Maricopa County Department of Public Health; Gregg Bach, City of Phoenix; Ken Drozd, NOAA/NWS Tucson; Paul Iñiguez, NOAA/NWS Phoenix; Tom Hill, Z Mansion; Benjamin McMahan, University of Arizona; Paul Chakalian, Arizona State University.

The project team would like to thank the Julie Ann Wrigley Global Institute of Sustainability's Communications and Marketing team for their design contributions.

ROLE OF FUNDING SOURCE

This publication was supported by Cooperative Agreement Number 5UE1EH001119-03, funded by the Centers for Disease Control and Prevention Climate Ready States and Cities Initiative. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the Centers for Disease Control and Prevention of the U.S. Department of Health and Human Services.

Prepared for: Arizona Department of Health Services | Agreement Number: 5UE1EH001119-03



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INTRODUCTION AND PURPOSE

Extreme weather events including heat waves, wildfires, dust storms, flooding, and drought, along with adverse air quality events, are climate-sensitive public health hazards in Arizona. Climate-sensitive hazards are environmental events that pose risks to human health and could be affected by long-term changes in temperature, precipitation, and other weather conditions. These events occur at a wide range of time scales, spanning short-term events like dust storms to long-term events like drought. Climate-sensitive hazards are among many environmental determinants of health. They can create or worsen health conditions such as cardiovascular diseases, asthma and other respiratory illnesses, and can lead to injury or premature death. For example, a heavy downpour can lead to an acute, flash flooding event that poses risk of injury such as falls, lacerations and puncture. Long-term changes in precipitation patterns can modify the suitability of certain regions for vectors (such as mosquitoes) that transmit infectious diseases or for the growth of fungus in soils. Demography, infrastructure, social capital, personal and institutional preparedness,

and the evolution of technology will also shape the nature of the impacts of climate-sensitive hazards on public health in Arizona. Building resilience across social, ecological, and technological systems will help prepare the State for these hazards.

The Arizona Department of Health Services (ADHS) is leading the development of a statewide climate and health adaptation plan as a participating agency in the U.S. Centers for Disease Control and Prevention's (CDC) Climate-Ready States and Cities Initiative. This document, released in April 2017, is the first version of Arizona's Climate and Health Adaptation Plan (ACHAP).

The goal of ACHAP is to support the mission of the ADHS: to promote, protect, and improve the health and wellness of individuals and communities in Arizona. In coordinating ACHAP, ADHS intends to support the development of interventions and enhancement of public health preparedness activities related to climate-sensitive hazards and minimize adverse impacts on the people of Arizona.

The guidance contained herein was generated using the ongoing work of current and future collaborations and through review and collaboration with other states. ACHAP 2017 serves to compile ideas, direction, and activities that stakeholders may wish to adapt in building resilience against the effects of climate-sensitive hazards. This document is intended to serve as a tool for state and local agencies to support related public health initiatives. Furthermore, it is intended to promote communication among partners by highlighting successful local and regional efforts and by exploring and reviewing new ideas.

Federal, state, county and local collaborators that have and are anticipated to contribute to the continued development of ACHAP include, but are not limited to: federal, state, and local government agencies, Native American tribal governments, Arizona universities and colleges, community-based organizations, healthcare organizations, non-governmental organizations, professional societies, and residents of Arizona. Representatives from several of these types of organizations participated in a climate and health

workshop coordinated by ADHS in June 2016. Perspectives from these workshop participants contributed to the development of ACHAP 2017.

A second version of ACHAP will be released in 2018 after a year-long collaborative process with stakeholders and researchers. This collaborative process will identify the best strategies for protecting the health and well-being of all Arizonans, drawing guidance from the CDC's Climate and Health Implementation and Monitoring Strategy. Ultimately, ACHAP will showcase the strengths and capacities of many organizations across Arizona that can play a role in protecting public health from climate-sensitive hazards. Successfully preparing Arizona requires a collaborative approach across many diverse stakeholders. Bringing to the table perspectives from many different local settings and operations will be key to the development of an effective plan. As such, ADHS and other contributors to ACHAP are encouraged to treat all perspectives as fair and valid in the deliberation about adaptation activities for reducing climate-sensitive health impacts in communities across the state.





SUPPORTING EVIDENCE

The development of a Climate and Health Adaptation Plan in Arizona is motivated by two broad concerns (following Frumkin et al. 2008):

1. Climate variability and additional factors, such as the rapid population growth forecast for Arizona, bring the potential for the public health impacts of existing hazards to be amplified in the future, necessitating a strengthening of existing public health functions.
2. Uncertainty in the manner in which climate-sensitive hazards will impact the systems on which people and communities rely for their health and well-being may bring new and unforeseen public health challenges. The possibility of new obstacles necessitates implementation of a flexible, iterative approach to managing climate and health challenges in the state.

The ADHS, in coordination with the CDC, research universities within the state, local health agencies, and other partners, are utilizing the CDC's Building Resilience Against Climate Effects framework (Marinucci et al. 2014) to guide the development of ACHAP. Over the past four years, ADHS has produced a comprehensive climate and health assessment and vulnerability assessment for the state. Major sections of these assessments

include: (1) a characterization of the geography and climatology of key hazards of concern for public health in Arizona, including extreme heat, drought, dust storms, wildfire, extreme precipitation events, and air pollution; (2) causal pathways that relate these hazards to health outcomes, and describe the current burden of disease associated with many of these hazards where suitable evidence is available; (3) a vulnerability assessment for these hazards, based on information derived from social indicators and information about the current severity of the hazards across the state; and, (4) projections for the severity of these hazards in the future, with descriptive assessments of how those projections may impact the total burden of climate-sensitive health outcomes. These assessments, when combined with other key planning documents from across the state, including comprehensive hazard mitigation plans, local and state emergency preparedness plans, and local development plans, comprise the evidence base that compels development of ACHAP.

The ADHS Extreme Weather and Public Health program, hosts many of the document's references in the preceding paragraph and other useful resources on its webpage: <http://azdhs.gov/preparedness/epidemiology-disease-control/extreme-weather/index.php>.



STRUCTURE OF THE PLAN

Arizona's Climate and Health Adaptation Plan is organized following the ten essential public health services that serve as the framework for the National Public Health Performance Standards ([CDC 2014](#)). These services also serve as the framework of a seminal research article considering the impacts of climate change on the nation's public health system (Frumkin et al. 2008). The ten essential public health services are:

1. Monitor health status to identify and solve community health problems
2. Diagnose and investigate health problems and health hazards in the community
3. Inform, educate, and empower people about health issues
4. Mobilize community partnerships and action to identify and solve health problems
5. Develop policies and plans that support individual and community health efforts
6. Enforce laws and regulations that protect health and ensure safety
7. Link people to needed personal health services and ensure the provision of health care when otherwise unavailable
8. Ensure competent public and personal health care workforce
9. Evaluate effectiveness, accessibility, and quality of personal and population-based health services
10. Research for new insights and innovative solutions to health problems

ACHAP is structured to identify ongoing and potential preparedness activities related to climate-sensitive hazards in Arizona that can support each essential public health service. The guiding principles that shaped the development of ACHAP 2017 across the ten essential services incorporate important ethical dimensions from public health and medicine, and include: prevention, precaution, risk management, co-benefits, economics, beneficence, and justice (Frumkin et al. 2008). The descriptions of these principles and their application to climate and health preparedness activities will continue to be adapted to the Arizona context in collaboration with partners over future revisions to this plan.



CLIMATE AND HEALTH ADAPTATION STRATEGIES

ACHAP 2017 includes a preliminary catalog of strategies stakeholders have identified that will guide adaptation. This catalog has been developed from stakeholder input and knowledge of ongoing preparedness activities in the state, as well as literature review of public health interventions for climate-sensitive hazards conducted by jurisdictions participating in the Climate-Ready States and Cities Initiative.

ESSENTIAL PUBLIC HEALTH SERVICE #1

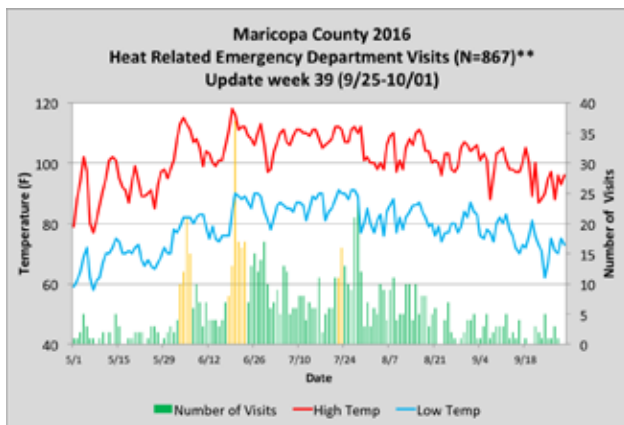
Monitor health status to identify and solve community health problems. Activities include the accurate, periodic assessment of the community's health status. These activities typically focus on using methods and technology to generate, compile, and make available data that can be used to interpret, assess, and communicate climate hazards and their effects on health.

- Perform routine epidemiological assessments of retrospective health records and environmental data to quantify disease burden.
- Operate real-time and near real-time surveillance programs for climate-sensitive health outcomes, such as heat- and cold-related illness and zoonotic/vector borne diseases (including mammals and insects).
- Facilitate data sharing across jurisdictional and agency/entity boundaries to implement effective response efforts.
- Increase accessibility of weather, climate, and health data for county and state health agencies for their jurisdiction including weather and air quality forecasts and climate projections.
- Increase participation of county and state agencies in national-scale programs related to the identification of climate-sensitive health outcomes and subsequent assessment of disease burden.

- Provide surveillance of bacterial, viral, and respiratory diseases associated with environmental factors (such as allergens and poor air quality for allergies).
- Provide surveillance of maternal and child health outcomes related to environmental factors.

Adaptation Highlight: Syndromic Surveillance of Climate-Sensitive Health Outcomes in Maricopa County

With input by Vjollca Berisha, Maricopa County Department of Public Health



Heat-related hospital visits in Maricopa County, Arizona, from 2016, as obtained from novel surveillance techniques that facilitate advance notification to healthcare providers.

In 2016, Maricopa County Department of Public Health (MCDPH), Office of Epidemiology began using syndromic surveillance data from the National Syndromic Surveillance Program (NSSP) BioSense Platform to supplement existing traditional heat surveillance activities. The BioSense Platform queries local emergency department (ED) and inpatient hospital visits associated with environmental heat-related illness. Syndromic surveillance systems are essential in providing near real-time health data that allow us to assess the severity of ongoing heat events. These data guide timely public health actions and provide evidence for additional resource needs, such as public health messaging or notifying ED staff during prolonged heat waves. Weekly reports are shared with internal and external partners to keep them informed and prepared.

ESSENTIAL PUBLIC HEALTH SERVICE #2

Diagnose and investigate health problems and health hazards in the community.

Activities include the timely identification and investigation of climate-sensitive health threats. These activities typically focus on utilizing diagnostic services and investigating mechanisms to address major health problems.

- Assess and revise causal pathways relating environmental factors to health outcomes on a periodic basis via review of the scientific literature and information about health outcomes gathered from counties and other collaborators.
- Enhance environmental data collection efforts in areas with higher hazard risk and/or vulnerable populations.
- Assist stakeholders and collaborators with exploratory enhanced surveillance for pathogens potentially associated with climate-related health hazards (e.g. testing rodents for pathogens, sero-surveys of residents for relevant vector-borne or zoonotic diseases).

ESSENTIAL PUBLIC HEALTH SERVICE #3

Inform, educate, and empower people about health issues. Activities include initiatives using health education and communication sciences to build knowledge and shape attitudes, inform decision-making choices, and develop skills and behaviors for healthy living in regards to building resilience against climate effects. In addition to the development of new knowledge, activities that promote the dissemination and use of that knowledge are supported under ACHAP.

- Increase public awareness of the links between environmental factors and health and well-being through educational campaigns, presentations, and meetings.
- Develop educational programs in the K-12 sector to facilitate lifetime learning of relationships between environmental factors and health.

- Increase the involvement of healthcare providers in preparedness and prevention efforts for climate-sensitive health outcomes.
- Generate opportunities for public perspectives to be heard to understand local concerns as they are perceived and experienced by diverse residents of the state.
- Provide equal educational and informational opportunities for all of the state’s residents regardless of their economic standing, geographical location, preferred spoken language, access to technology, and other variables that might be associated with differential outreach and access.
- Ensure public awareness of existing community resources to help respond to extreme weather events, such as public shelters and cooling centers.
- Integrate data collected through surveillance programs and epidemiological assessments into other public health functions and services (e.g. messaging and early warning systems).
- Increase public knowledge regarding environmental conditions that may exacerbate existing health concerns.
- Empower residents to develop household preparedness kits and knowledge of existing resources in their neighborhoods and communities that could help reduce health burdens associated with extreme weather events.
- Increase knowledge of the health benefits of activities including alternative modes of transportation such as biking, walking, and public transit.



New heat safety signage informs hikers of health risks at a City of Phoenix trailhead. Photo credit: Phoenix Parks and Recreation Department

Adaptation Highlight: Take a Hike. Do it Right. Educational campaign in the City of Phoenix

With input from Gregg Bach, City of Phoenix Parks and Recreation

In 2015, the city of Phoenix launched the “Take a Hike. Do it Right.” hiking safety campaign. The city manages 41,000 acres of desert and mountain preserve land that contains 200-plus miles of hiking trails (88 official trails). In recent years, the amount of mountain rescues performed by the Fire Department has grown, many involving out-of-town visitors who are not acclimated to the region’s warm weather.

Several City departments – Parks and Recreation Department, Fire Department, Communications Department, City Manager’s Office – partnered with local tourism associations to develop a consistent message about hiking safety to address safety while hiking. Graphics were created and integrated into the City website, social media accounts and new signs at the City’s 41 official trailheads. Read more about the campaign and hiking safety checklist at this webpage: <https://www.phoenix.gov/parks/trails>

ESSENTIAL PUBLIC HEALTH SERVICE #4

Mobilize community partnerships and action to identify and solve health problems. Activities include constituency development, identification of key stakeholders and collaborators, coalition or team development, and building formal and informal partnerships to promote health improvements. Mobilize the perspectives from a wide range of sectors, both inside and outside of public health, to design and deploy preparedness activities for climate-sensitive hazards.

- Form collaborations to design, implement, and evaluate preparedness activities that are based on the problems and impacted communities instead of based on existing jurisdictional boundaries or agency regulations.
- Expand and mobilize relationships with existing local, neighborhood, community, and faith-based groups that provide social and health services to residents, and connect preparedness activities with these groups, such as providing cooling refuge at localities that also offer case management, food and shelter, or job training.
- Activate existing community and social networks and programs to expand real-time monitoring efforts and resource sharing of vulnerable populations during extreme weather events, such as neighbor check-ins during heat waves.
- Gather the perspectives of healthcare providers regarding patterns and trends in incidence of climate-sensitive diseases in their facilities.

ESSENTIAL PUBLIC HEALTH SERVICE #5

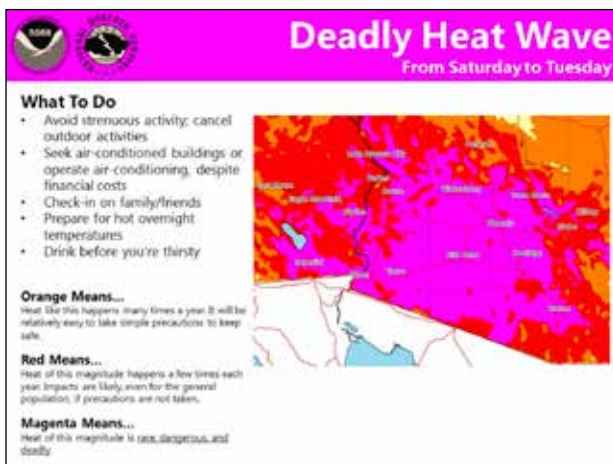
Develop policies and plans that support individual and community health efforts. Activities include policy and plan development to protect health and guide public health practice. These activities typically include developing and improving existing plans, and planning for emergencies including aligning resources to assure successful planning.

- Empower counties, cities, towns, and tribal organizations to develop localized climate and health adaptation plans and strategies and/or contribute to the development of the statewide plan.
- Encourage the development of sector-specific hazard response plans, such as extreme heat and air quality strategies for K-12 schools.
- Ensure a clear communication pathway between county and state health agencies and the National Weather Service. This collaboration will help weather forecast information and weather warnings reach key audiences with appropriate health messaging.
- Develop recognition programs acknowledging successful and model efforts at the local, county, and state level for climate and health adaptations and interventions.
- Strengthen health sector participation in the revision of strategic planning documents in other sectors, including transportation, land use/zoning, emergency management and economic development.
- Financially support local-scale pilot projects for preparedness efforts through the provisioning of seed funds from the CDC's Climate-Ready States and Cities Initiative funding.
- Revise Arizona's Climate and Health Adaptation Plan on a regular basis, at least once every three years.
- Solicit external peer review of Arizona's Climate and Health Adaptation Plan at each revision of the document.

Adaptation Highlight: Special weather briefings and statements from National Weather Service forecast offices in Arizona

With input from Ken Drozd, NOAA/NWS Tucson, and Paul Iñiguez, NOAA/NWS Phoenix

Effective and timely communication between local forecast offices of NOAA's National Weather Service (NWS) and the public health sector are essential ahead of hazardous weather events that



National Weather Service Phoenix forecast office information graphic posted ahead of forecast of dangerous heat in central and southern Arizona, June 2016.

threaten human health and well-being. The NWS is taking a proactive approach to engage with public health sector stakeholders to determine the types of information and forecasts that will be most effective for protecting the public and providing that information on a regular basis. For example, the NWS issues special weather briefings that are distributed to a wide range of government stakeholders with more accessible language than what is typically found in technical discussions. These briefings also provide assessments of forecast confidence and focus on the juxtaposition of weather hazards and exposure. In addition, the NWS has increased its public engagement through social media channels like Facebook, YouTube, and Twitter, and are working collaboratively with public health partners in the state to include health information in their public messaging.

ESSENTIAL PUBLIC HEALTH SERVICE #6

Enforce laws and regulations that protect health and ensure safety. Activities include the review, and evaluation of laws and regulations, including education about laws and regulations, and support of compliance efforts in regards to climate-related health threats. ADHS and other public health entities will support continued administration of best practices, laws, and regulations that protect and enhance public health in Arizona. Organizations are encouraged to review their own adherence to best practices with respect to ensuring the health and safety of Arizonans.

- Identify existing regulations that promote healthy living in Arizona's climate.
- Perform assessments with selected agencies and organizations to understand the extent to which best practices, laws, and regulations are being followed.
- Inform relevant enforcement agencies regarding any known breaches of existing regulations or inadequate enforcement practices.
- Track pending and new legislation related to climate and health issues.

ESSENTIAL PUBLIC HEALTH SERVICE #7

Link people to needed personal health services and ensure the provision of health care when otherwise unavailable. Activities include the introduction and ongoing care management for all populations within a community. These activities typically include identification of individuals with barriers to care, effective introduction in a coordinated care system, ongoing care management, utilization of culturally appropriate and targeted health information, and access to transportation and enabling services. These activities are most important in preparation for extreme weather events, as well as introduction to care or continuity of care as the population experiences the effects of climate-sensitive hazards.

- Provide resources on how to contact appropriate health services when in distress.
- Provide guidance to the medical and behavioral health community regarding the size, location, and needs of vulnerable populations that would require additional outreach efforts in large-scale disasters or service interruptions.
- Ensure that information about service providers is regularly included in messaging about extreme weather events.
- Convey likely household responses and needs to utility companies in the event of service suspensions, particularly during summer months in warm climates of southern Arizona.
- Increase opportunities for people to receive appropriate mental health care following extreme weather events, adverse weather-related health events, and/or in response to chronic environmental stressors.

Adaptation Highlight: Weekly services for homeless individuals at the Z Mansion, Tucson

With input from Tom Hill, Z Mansion

One of the most vulnerable populations in Pima County is the homeless population. They have increased risk of death, higher injury and illness rates, and are more likely to have adverse effects from extreme weather events, the heat, and the cold than the housed population. To alleviate these effects, the Z Mansion in Tucson, AZ provides meals, a first aid clinic, and a pet clinic to up to 300 homeless women, men, and children every Sunday. To date, The Z has served over one-quarter of a million meals to the homeless population. They serve in collaboration with the WORKshop group, the Community Emergency Medical Responders Foundation, and Woofs Without Roofs without any funding. The Z also provides hot lunches during the week in collaboration with 12 area restaurants, has supported the development of the St. Francis Men's Clinic, and is the largest street-provider of winter blankets and warm clothing during the winter months. In coordination with the C-EMR



The Z Mansion, in partnership with organizations like the Community Emergency Medical Responders Foundation, provide a range of services for homeless individuals in the Tucson area.

Foundation, they utilize street-based medical volunteers to allow for early referral and thus, early care for medical problems. During the summer months, when homeless individuals are more at risk for heat illness, the C-EMR team solves a vital need in the community by catching the signs of heat illness early. The Z has worked tirelessly to serve this population for the past 16 years.

ESSENTIAL PUBLIC HEALTH SERVICE #8

Ensure a competent public and personal health care workforce. Activities include assessing the public health and health care workforce. These activities typically include maintaining public health workforce standards, improving the workforce through continuing education and lifelong learning, leadership development, and specific trainings related to current or emerging research in climate-sensitive hazards.

- Promote existing and develop additional certificate programs and internship opportunities at local and state health agencies in Arizona to support development of early career public health professionals and researchers equipped to address climate-sensitive health concerns.

- Develop and enhance curricula at higher education institutions in the state of Arizona that support development of public health professionals and researchers equipped to address climate-sensitive health concerns.
- Increase the number of training opportunities for healthcare professionals to learn about the impacts of climate-sensitive hazards on health, including climate projections and shifting disease burdens (e.g., webinar series, trainings at regional meetings).
- Increase the number of public health practitioners and researchers in Arizona who participate in nationally and internationally-leading climate and health workshops, assessments, conferences, synthesis activities, courses, and exchange programs.
- Encourage and develop training for public health professionals on emergency preparedness (e.g., mass prophylaxis training, sheltering and food distribution plans during displacement, planning and response for water contamination events).

ESSENTIAL PUBLIC HEALTH SERVICE #9

Evaluate effectiveness, accessibility, and quality of personal and population-based health services. Activities include the ongoing evaluation of health services and climate and health intervention, mitigation, or adaptation efforts. These activities typically integrate quality improvement and performance management to ensure effectiveness, accessibility, and quality of the public health services or efforts. ACHAP pilot projects will all include an evaluation component.

- Expand the evidence base regarding effectiveness of implemented intervention strategies by publication in peer-reviewed journals/publications.

- Conduct routine evaluations of intervention strategies for climate-sensitive health outcomes in collaboration with agencies responsible for their operation and implementation at local, county, and state levels.
- Monitor long-term trends and spatial patterns in climate-sensitive health outcomes in Arizona.

ESSENTIAL PUBLIC HEALTH SERVICE #10

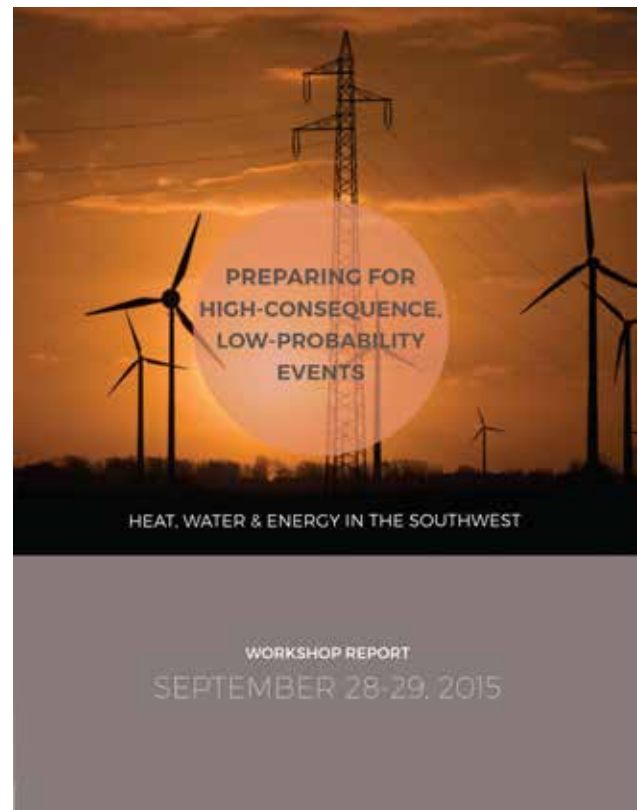
Research for new insights and innovative solutions to health problems. Activities include identification and monitoring of innovative solutions and cutting-edge research to advance public health and climate science. These activities typically involve linkages between public health and academic/research institutions to conduct epidemiological studies, health policy analysis, and public health systems research.

- Reduce barriers to climate and health research in the state through the creation of shared data resources and protocols.
- Encourage public health partners across Arizona to support research and education related to climate and health adaptation programs within the state's universities, such as by providing guest lectures to student classes and serving as partners on research projects.
- Coordinate funding applications to public and private organizations relevant to climate and health adaptation efforts among State universities.
- Convene working groups and virtual platforms to facilitate cross-agency, jurisdiction, and resource exchange of recent research activities in the State.
- Create investigative mechanisms for further understanding of climate-sensitive disease pathways.

Adaptation Highlight: Preparing for High Consequence, Low Probability Events in the Southwest: Collaborative Engagement Workshop

With input from Benjamin McMahan, University of Arizona

Arizona's research universities support climate and health preparedness initiatives in the state by conducting cutting-edge climate and health science, participating in national and international working groups, and facilitating regional conversations and projects that extend beyond the typical collaborations and scope of practitioners. Many research groups around the state have directed attention to some of the region's most important challenges with respect to climate-sensitive hazards, including the Climate Assessment for the Southwest (CLIMAS) team at the University of Arizona and the Urban Climate Research Center at Arizona State University. In November 2015, CLIMAS researchers organized a workshop (funded by the Bureau of Reclamation) at the University of Arizona to discuss the complex and interrelated threats to energy and water systems in the Southwestern United States. Over 30 practitioners from water, energy, and emergency management agencies participated in the workshop along with a number of researchers from around the state. Key discussion topics included organizational learning strategies, planning for interventions for slow-moving threats that operate on long-term timescales, and coordination across different levels of government to ensure timely and comprehensive organizational response. The workshop also produced a set of practitioner-informed priorities that will guide future research initiatives in the region. A complete report of the workshop is available online at http://www.environment.arizona.edu/high_low_workshop



Cover page of the CLIMAS report "Preparing for High-Consequence, Low-Probability Events"



ACHAP ENGAGEMENT AND REVIEW STRATEGY

The development of Arizona's Climate and Health Adaptation Plan (ACHAP) is based on multi-year efforts in the state connected to the Climate-Ready Cities and States Initiative, and builds upon an even longer history of preparedness efforts deployed by a wide range of stakeholders. Historically, planning for weather and climate hazards has been a function for many organizations and agencies across the state. ACHAP will continue to provide an organizing framework and platform for deliberation on the most effective strategies that will benefit the health of Arizonans as the State experiences the effects of climate-sensitive hazards. The plan also aims to highlight and disseminate successful public health efforts and challenges in order for Arizona to more readily adapt to climate-sensitive hazards.

This first iteration of ACHAP was released by the Arizona Department of Health Services Office of Environmental Health in April 2017.

The process of revising and updating the document in collaboration with a wide range of stakeholders across the State of Arizona will start in April 2017. The second version of ACHAP is expected to be released in 2018. Through projects and stakeholder engagement activities of the CDC grant, "Building Resilience Against Climate Effects: Enhancing Community Resilience by Implementing Health Adaptations," the next iteration of ACHAP will identify specific preparedness and intervention

activities for protecting the health and well-being of Arizonans, with a specific focus on the vulnerable populations and communities connected to those activities. Local health agencies will be given the opportunity to propose and/or deploy pilot interventions in their own communities that will provide additional guidance for ACHAP with funding from pilot project grants at ADHS. These projects will be evaluated for effectiveness. While the immediate goal of these programs is to improve the health of Arizona's communities, one downstream goal includes disseminating results and lessons learned to other communities adapting health impacts from climate-sensitive hazards.

Adaptation activities specific to each hazard will be mapped out in greater detail in the second iteration of ACHAP in collaboration with other agencies and organizations. A large and diverse community of agencies and individuals are already engaged in a wide suite of activities building community resilience to climate-sensitive hazards. The 2018 plan will describe the extent to which these activities are already in use across the State, propose strategies for monitoring and enhancing their effectiveness, and recommend additional activities to be undertaken in the future. By sharing the insights gained through collaboration across sectors, implementing pilot projects, and evaluating their efficacy, Arizona can build a more resilient population while guiding other states interested in attaining the same goals.



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