

Protecting Californians from Deadly Heat

GUIDANCE FOR AN EQUITABLE AND EFFECTIVE STATE STRATEGY

Heat is a public health, climate resilience and social equity problem.

Public Health: Extreme heat is among the deadliest climate impacts.¹ It has taken the lives of thousands of Californians, as estimated in recent years.² Beyond mortality, chronic heat stress and extreme heat have wide-ranging impacts on public health, causing heat stroke and worsening pre-existing conditions such as heart disease.³

Education and Employment: Extreme heat makes it harder for students to learn,⁴ for teachers to teach and for workers to do their jobs safely and maximize their earning potential.⁵ These effects exacerbate educational and economic inequalities.

Economic and Racial Justice: Extreme heat forces families to pay more to cool their homes,⁶ making electricity shut-offs more likely. Electricity can mean life or death consequences for those who lack access to cooling or who cannot afford to use it. Extreme heat disproportionately affects low-income communities and communities of color due to structural discrimination and social inequities.⁷

Climate Resilience: The urgency of heat mitigation is underscored by the worsening climate crisis. By 2069, the average California day is projected to be around 5.8 degrees Fahrenheit warmer than the historical average.⁸ This does not account for the additional heat increases associated with the urban heat island effect.

California needs an equity-driven, comprehensive and coordinated policy and funding strategy for heat preparedness and risk reduction. The **State Extreme Heat Action Plan**, initially drafted in January 2022, is a first step. But it does not fully address the gaps identified in our report, **[Adapting to Extreme Heat in California: Assessing Gaps in State-level Policies & Funding Opportunities](#)**.

This brief outlines five recommendations for a people-focused, evaluative and targeted approach to ensure the equitable and effective management of extreme heat in California.

Summary of Recommendations



Establish a heat management framework anchored by public health, social equity and welfare goals.



Track progress toward goals, ensure accountability, and integrate lessons to guide future investments.



Establish a comprehensive and coordinated all-of-government approach supported by long-term funding.



Take targeted action to protect vulnerable Californians where they are most exposed to extreme heat.



Increase financial and technical support for cities and communities to facilitate locally-led solutions.



RECOMMENDATION 1

Establish a heat management framework anchored by public health, social equity and welfare goals.

Status Quo: The state of California has not recognized extreme heat as a public health crisis deserving of urgent, bold, and well-funded action to save lives. As a reflection of this, the Extreme Heat Action Plan lacks cross-cutting health, equity and welfare goals to guide investment and prioritization across four action tracks. Within each action track, the plan lays out many objectives (referred to in the plan as goals) and strategies (referred to in the plan as subgoals); however, they are not connected by a broader framework driven by health and equity outcomes.

As a result, the plan focuses heavily on nature-based solutions, such as carbon sinks, that are an important type of strategy but should not crowd out strategies that more directly provide health benefits. Examples of health-focused strategies include behavioral interventions (e.g., heat alerts and standards), building-level interventions (e.g., air conditioning and energy efficiency retrofits), and community-scale built environment interventions (e.g., shaded bus shelters and playgrounds), all of which are proven to reduce heat risk and exposure for the most vulnerable Californians.

What's Needed: We recommend that the state develop a public health-focused and equity-driven heat management framework to guide investment priorities. This would mean explicitly establishing a vision, goals and performance metrics around improving the public health and welfare of Californians, particularly those most vulnerable to extreme heat. A heat management framework should seek to align with the state's climate plan and leverage state programs in energy efficiency and other climate investments to achieve both climate mitigation and climate/heat resilience.

RECOMMENDATION 2

Track progress toward goals, ensure accountability, and integrate lessons to guide future investments.

Status Quo: The current Extreme Heat Action Plan lacks a framework for learning and data gathering. Without this, there is no clear path for tracking progress, maintaining accountability or taking stock of lessons from early actions to guide future investments. To ensure effective and equitable investments, we should seek to better understand which interventions would work best to achieve goals and outcomes around public health and equity. The science of heat and heat interventions is nascent—albeit growing rapidly—and the state is early in the process of heat planning, investing and governing.

What's Needed: The state should establish a learning approach to heat adaptation that integrates evaluation of early interventions along with measurable performance benchmarks and accountability mechanisms to ensure that heat actions are achieving their stated goals and objectives around health, economic and environmental co-benefits, such as greenhouse gas reductions. As part of this, the state should establish checkpoints (e.g., annual reports) to evaluate progress and adjust strategies to incorporate evolving understanding of the science of heat impacts and the effectiveness of heat interventions.

The current Extreme Heat Action Plan appropriately acknowledges and addresses the inequitable distribution of extreme heat impacts, frequently seeking to benefit “vulnerable communities.” To best serve these communities, the state should support local pilot projects that can serve as learning opportunities. As such, local pilots should include: the collection of baseline data to assess pre-intervention conditions, empowering heat-burdened communities to identify and prioritize

the actions that will most benefit them, establishing evaluation metrics for each action, gathering data on the implementation of heat interventions, and sharing progress to inform future investments.

RECOMMENDATION 3

Establish a comprehensive and coordinated all-of-government approach supported by long-term funding.

Status Quo: California’s heat management currently consists of a patchwork of regulations and funding sources, allowing many risks that can be mitigated to slip through the cracks. Heat mitigation efforts and funding are dispersed across many state agencies, with no central body responsible for coordinating and managing efforts. There is no centrally responsible state authority to provide technical assistance, strategic funding or coordination to sister agencies to address the issue of heat—and that is a problem for our state’s capacity to respond to extreme heat.⁹


What’s Needed: A comprehensive, coordinated and adequately funded response across state departments is essential for advancing public health and reducing economic and health disparities associated with extreme heat. An all-of-government approach does not require the state to put all statutory authority for heat risk regulation into the hands of one agency or office, but it does call for centralized coordination.

RECOMMENDATION 4

Take targeted action to protect vulnerable Californians where they are most exposed to extreme heat.

Status Quo: While the state is currently funding an array of programs that can sometimes lead to heat risk mitigation, no existing programs specifically target heat. More specifically, no programs fund heat reduction strategies in the public sphere. As climate change leads to ever-rising temperatures, it is critical for the state to approach heat management directly and

Assembly Bill 2076



Recently introduced **AB 2076** (Rivas) responds to our center’s 2021 **research findings**. It seeks to address a primary gap we identified, which is a lack of statewide coordination on heat management, by calling for the Office of Planning and Research (OPR) within the Governor’s Office to play that role. In addition, AB 2076 would improve data on heat impacts to identify communities where heat illness and fatalities are happening most. This is a prerequisite to achieve our Recommendation #4: target heat investments where it is needed most.

explicitly, rather than solely as a co-benefit.¹⁰ The state’s heat plan presents an opportunity to address heat directly and to ensure programs and funding prioritize and target Californians most exposed to heat where that exposure occurs.

What’s Needed: Our report highlights the need for targeted heat risk-management policies, programs and interventions in common exposure settings. A setting-based approach to heat management would allow the state to directly target heat where exposure is most consequential, including public places, homes, and schools that currently have no heat standards or policies limiting heat exposure. Additionally, this approach would allow the state to prioritize communities who face the greatest exposure to extreme heat and have the least ability to cope due to factors ranging from income to impaired mobility to linguistic isolation.

Designing and implementing heat interventions in the context of specific settings where people (and especially heat-vulnerable people) spend time can allow for efficient delivery and oversight of heat interventions. To facilitate such an approach, our researchers have identified seven settings where Californians face particularly high heat risk. Read more in the side column on the next page.

A Setting-based Approach

We identify seven settings where Californians face particularly high heat risk:



homes;



workplaces;



schools and child care facilities;



senior assisted living facilities;



prisons, jails, and correctional facilities;



public outdoor spaces; and



public transit stops.

Each of these settings represents a place where people—and in some cases, specifically those who are most vulnerable to heat, like children and the elderly—spend much of their time.

In this policy brief series, we outline key recommendations for specific settings, drawing substantially from our recent analysis of the state's heat policy landscape, "Adapting to Extreme Heat in California."

Assembly Bill 2597 and State Bill 1261

Examples of action following Recommendation 4 include **AB 2597** (Bloom), which would establish an extreme heat standard in rental housing units as part of the definition of "habitability" and **SB 1261** (Stern), which would develop an extreme heat zone mitigation grant program for residential buildings to provide grants to low-income, heat-vulnerable residents. These types of setting specific and heat targeted actions are important to impact human health, welfare and social equity.

RECOMMENDATION 5

Increase financial and technical support for cities and communities to facilitate locally-led solutions.

Status Quo: Communities that face disproportionate effects of extreme heat—most often, low-income communities of color—know best what their local residents and neighborhoods need. However, many lack the funds and other support needed to plan and implement heat interventions. The result is that communities, particularly those less resourced, are unprepared for extreme heat. While a one-size-fits-all approach is not appropriate—the effects of extreme heat vary widely from region to region, not to mention between adjacent neighborhoods—the lack of heat action guidance and funding from the state to local governments and community-based organizations (CBOs) hinders bold local action.

What's Needed: The state should empower and build capacity in the most heat-burdened cities and communities by providing significant funding and technical support so that both local governments and CBOs, independently and in collaboration, can plan and implement heat reduction strategies that meet the needs of their communities. Community-led pilot projects can include shade structures, cool roofs and cool neighborhood strategies that should be coupled with evaluation so that lessons learned can inform potential scaling or improvements.

As an example of a particularly important type of community-based pilot, the state could invest robustly in the development of community resilience centers—trusted community spaces where residents can access cooling, backup power and other critical services during

extreme heat events and other disasters. Such local facilities, which can be co-designed, planned and led by CBOs and community residents with the support of local governments, can involve a new building or may leverage an existing well-used facility, such as a library or community center. Community resilience centers should facilitate multiple benefits, such as providing a safe, trusted space where communities can gather daily; receive a range of services including internet access and emergency preparedness training; and, during emergencies, access social, health and resilience services such as cooling, shelter and energy from the facility's micro-grid.

In conclusion, California needs a comprehensive, people-focused plan to address heat.

Addressing extreme heat is a critical public health, social equity, and climate resilience challenge. We hope that our recommendations can guide California policymakers as they continuously refine plans, policies, and investments to protect Californians from the impacts of extreme heat.

Notes

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