

**NATIONAL CENTER FOR ENVIRONMENTAL HEALTH  
EH 21-2101- Building Resilience Against Climate Effects: Implementing and Evaluating  
Adaptation Strategies that Protect and Promote Human Health**

**SUMMARY STATEMENT**

**Date of Review:** July 13-15, 2021

**Applicant Name:** San Francisco Department of Public Health

**Application #:** NUE1EH2021001427

**Core Component Score:** 94.00

**Brief Summary of Application:**

*Summary of Project:*

Since 2013, the San Francisco Department of Public Health's Climate and Health Program has worked to address the local health impacts of climate change through research and assessments, maps and data tools, outreach and engagement, and working interdepartmentally to bring a health perspective to Citywide climate adaptation activities.

In San Francisco, climate change means extreme temperatures, sea level rise and extreme storms, wildfires and air pollution—and these events have significant, cascading, and compounding impacts on public health. These health impacts are not evenly distributed and the communities who carry the heaviest health burden are the ones most exposed, most sensitivity, and with the least access to the economic, social, and political resources to adapt.

Local health departments are uniquely positioned to work across sectors to identify, implement, and improve equitable climate actions.

The Climate and Health Program is applying for both the Core Component and Component-A.

These actions will use the BRACE framework to enhance climate health leadership, expand stakeholder relationships, compile evidence and best practices to develop adaptation plans, build resilience through the implementation of these adaptation plans, and evaluate and disseminate best practices. Specifically, the Climate and Health Program will propose activities to expand the role of local health departments to facilitate large intersectoral climate adaptation processes that brings together City departments, community-based organizations, regional networks, and academic partners. The Heat and Air Quality Resilience Project (HAQR) represents an

innovative approach to coordinate the identification, implementation, and evaluation of medium-to-long-range resilience actions. HAQR is a climate and health adaptation identified in the Core Component and Component A. The expanded Component-A HAQR includes expanded research, CBO-support, outreach and engagement, and evaluation initiatives.

### *Other Relevant Comments*

### **Response to Weaknesses and Recommendations**

Funded applicants should submit a response to the weaknesses and recommendations as a Grant Note in GrantsSolutions by October 1, 2021.

### **Core Component**

#### **Reviewers' Comments - Approach:**

##### *Strengths of Section:*

The Climate and Health Program will centralize the planning, coordination and expansion climate and health actions within DPH, citywide, regionally, and nationally. This allows LHDs to build internal capacity to prepare for and response to them—to adapt our programs and health services to climate change-related hazards and support interdepartmental and intersectoral climate adaptation efforts. The capacity generated through the Climate and Health Program founded the Climate Change Coordination Committee will facilitate an increased cross-programmatic partnerships, including workforce trainings for the Environmental Health Branch to help inspectors adapt their services to climate hazards, and a project to insert climate and health measures into the Community Health Needs.

Letters of support from both within the organization and Bay area partners are evidence of the high priority for these activities.

The Climate and Health Program will continue to engage stakeholders to effectively identify and implement actions responsive to local needs and communicate best practices to increase the effectiveness of adaptations. The Climate and Health Program has built a diverse roster of stakeholders to ensure that actions are co-developed by community representatives. The Climate and Health Program work across departments to leverage established City stakeholder networks to cultivate and strengthen relationships with the communities most vulnerable to the health impacts of climate change.

The Climate Impact Compendium (Compendium) represents an update to the 2014 Climate and Health Profile. The Climate and Health Profile connected local climate projections to health impacts and then through a literature review, to the communities most vulnerable to those impacts. The Climate and Health Profile has been used in numerous City planning documents, by community organizations to advocate for equitable distribution of resilience resources, and by other LHDs as they develop similar assessments.

The Climate and Health Program focuses on: 1) extreme heat, 2) drought, wildfire smoke, and air quality, and 3) power-disruption related to either wildfires or extreme heat events. As these events often coincide, the Climate and Health Program is also concerned with planning for simultaneous events.

Over the last decade, there has been significant work by DPH and CCSF to identify, implement, and communicate seasonal short-term emergency preparedness and response actions. They have targeted populations for this activity are identified in the 2019 DPH Extreme Heat Vulnerability Assessment and include: populations without access to cooling or ventilation, populations in urban heat islands, populations with pre-existing health conditions, older adults, non-white populations, and populations experiencing homelessness.

To evaluate adaptation actions, the Climate and Health Program will employ the CDC Evaluation Framework to design an evaluation approach that accounts for time, scale, and complexity. high-level logic models for the two planned adaptation actions the Climate and Health Program will implement during the performance period. The model outlines the inputs (personnel, local knowledge, and resources) needed to implement the activities, how those inputs will facilitate activities, the outputs of those activities, and the expected short, intermediate, and long-term outcomes from those outputs. These models will be updated when full evaluation plans are developed for each adaptation plan, and also throughout the performance period based on findings from continuous improvement efforts.

**A non-experimental, pre-post design will be used to assess the effectiveness of the adaptation actions in meeting the expected outcomes and the overall evaluation questions.**

The Adaptation Action Plan and Evaluation Plan (APEP) will facilitate the implementation, evaluation, and improvement of

adaptations using the evaluation framework and logic models proposed on p9. APEPs will allow the Program to track progress through specific, measurable, achievable, relevant, and timebound objectives, to identify evaluation activities and data sources, and easily communicate changes to adaptations through yearly APEP updates

**The Climate and Health Program shares resources on the Program website [sfclimatehealth.org](http://sfclimatehealth.org).**

The Climate and Health Program will use the evaluation findings to update adaptation actions. This continuous improvement process will be built into the APEP as part of the Dissemination and Improvement Plan.

The Climate and Health Program plans to continue membership in local, statewide, and national groups such as NACCHO, BARHII and a collaborative workgroup of Western jurisdictions to receive BRACE funding (BRACE WEST). The Program will prioritize conference presentations, and journal submissions to add to the climate health practice.

- Surveyed their workforce to understand current capacity and will use results to enhance internal capacity
- Provided a detailed logic model for the Heat and Air Quality Resilience Project (HAQR) that included all required elements; Provided a previous workplan that has milestone dates, performance measures, and output activities for 2018 activities
- Previously worked to expand and strengthen stakeholder relationships (2017-2018), and plans to build upon Implementation and Monitoring Strategies (IMS) Communications Plan to further engage and build capacity internally and externally
- To demonstrate stakeholder relationships, has multiple letters of commitment for state and city agencies, 1 community partner, regional and national partners
- Has a strong implementation plan that includes adaptation actions, evaluation of adaptation actions (pre-post design), and dissemination to the public via a guide for local health departments to implement BRACE with pilot training in Travis County Health Department and a BRACE WEST Community of Practice
- Provided examples of products that show how health impacts vulnerable populations and adaptation

including the Climate and Health Profile, Extreme Heat Vulnerability Assessment, Flooding and Extreme Storm Vulnerability Assessment and Analysis of the 2017 Extreme Heat and Wildfire Smoke Events

*Weaknesses of Section:*

- Would like to see additional partnership with community groups (only 1 letter of commitment identified), but has ample other partners that work directly with community groups and states that local CBOs are active in the HAQR
- The application does not explain why specific focus areas are chose.
- Much of the actions described appear to be bureaucratic, focused on coordination and planning, with little description of concrete adaptation actions to be taken.

*Recommendations for Section:*

- Consider detailing how community groups will be incorporated into stakeholder mapping, evaluation, and dissemination plans
- The proposal presents a comprehensive and well documented plan for implementing and evaluating adaptation strategies that protect and promote human health

**Core Component**

**Reviewers' Comments - Evaluation and Performance Measurement:**

*Strengths of Section:*

The Climate and Health Program has continued to engage stakeholders to effectively identify and implement actions responsive to local needs and communicate best practices to

increase the effectiveness of adaptations. The Climate and Health Program has built a diverse roster of stakeholders to ensure that actions are co-developed by community representatives. The Climate and Health Program work across departments to leverage established City stakeholder networks to cultivate and strengthen relationships with the communities most vulnerable to the health impacts of climate change.

- Provided a draft evaluation plan that included outcomes, evaluation questions, and performance measures aligned with primary activities
- Plans to engage stakeholders to build evaluation capacity through a variety of methods including online surveys, qualitative interviews and other metrics
- The Climate and Health Program manager, with the Program since 2013, has been responsible for the development of evaluation plans

*Weaknesses of Section:*

- Evaluation plan did not detail timelines; however, applicant indicates that a full evaluation and performance measurement plan will be drafted within first 6 months of the project period; Workplan does has responsible party and completion dates for activities
- The applicant notes that the plan is not yet complete and currently lacks for stakeholder engagement and input into the design.

*Recommendations for Section:*

- Provide a full evaluation plan inclusive of timelines within first 6 months of the project period

**Core Component**

**Reviewers' Comments - Organizational Capacity to Implement the Approach:**

*Strengths of Section:*

The Climate and Health Program has continued to engage stakeholders to effectively identify and implement actions responsive to local needs and communicate best practices to increase the effectiveness of adaptations. The Climate and Health Program has built a diverse roster of stakeholders to ensure that actions are co-developed by community representatives. The Climate and Health Program work across departments to leverage established City stakeholder networks to cultivate and strengthen relationships with the communities most vulnerable to the health impacts of climate change. The Climate Impact Compendium (Compendium) represents an update to the 2014 Climate and Health Profile. The Climate and Health Profile connected local climate projections to health impacts and then through a literature review, to the communities most vulnerable to those impacts. The Climate and Health Profile has been used in numerous City planning documents, by community organizations to advocate for equitable distribution of resilience resources, and by other LHDs as they develop similar assessments.

- Has good leadership and program management as demonstrated by previous support and leadership by key staff
- Applicant describes a strong surveillance and data analytics capacity. The Applied Research, Community Health Epidemiology, and Surveillance (ARCHES) Branch of the Population Health Division is responsible for coordinating collection, processing, management, analysis and interpretation of health-related data
- Established local, national, and statewide partnerships for climate and health activities; For example, co-facilitated a multi-city workgroup to identify best practices related to heat, wildfire smoke, and COVID-19 hazards.
- Previously funded for BRACE activities with important reports (e.g., Hospital Extreme heat and Wildfire Smoke Best Practices toolkit, and Climate and Health Adaptation Framework) and plans to continue to implement framework

*Weaknesses of Section:*

It is not clear how the BRACE program's findings informed the current application.

**OTHER COMMENTS:**

The examples of communication products provided appear to be targeted towards clinicians or public health officials, rather than community-based organizations and the general public

*Recommendations for Section:*

## **Core Component**

### **Reviewers' Comments - Budget and Budget Narrative:**

*Strengths of Section:*

*Weaknesses of Section:*

*Recommendations for Section:*

Comments:

It appears that all of the proper accounting procedures are in place to manage contract monies.

Provided documentation (grants management guidebook) that describes financial system and capacity to write, award, and manage contracts



## **Optional Component A – Expanded Implementation and Evaluation**

**Component A Score: 74.67**

### **Reviewers' Comments - Compile Evidence and Best Practices to Develop Adaptation Plans:**

#### *Strengths of Section:*

Climate and Health Program will use the Heat and Air Quality Resilience Project (HAQR) and related facilitation, coordination, research, implementation, and evaluation actions. The HAQR represents an innovative model to expand the role of LHDs to facilitate large intersectoral climate adaptation processes to encourage all programs and disciplines to use health and equity data to evaluate actions. The HAQR is co-managed by the Climate and Health Program and the Program communicates priorities to City leadership, chairs the coordination committee and support teams, supports the implementation teams, engages community stakeholders, and manages evaluation activities through: 1) Dedicated epidemiology and air quality data support to improve the collection and dissemination of climate data and health data, 2) Increased evaluation capacity through partnership with the UCSF Partnerships for Research in Implementation Science for Equity (PRISE) Center, 3) Increased community involvement in the co-design of actions through a community outreach coordinator and pass-through funding to San Francisco community organizations, 4) Contractual support to the implementation teams for research and data generation, graphic design, and translation services, 5) Increased best practices dissemination activities through dedicated resources towards engagement with other LHDs to train them on the BRACE framework.

- Plans to expand the HAQR and will update the 2014 Climate and Health Profile (Compendium) and work with stakeholders including epidemiologists, community organizations, and other partners.
- Describes health effects related to extreme heat; wildfire smoke, and air quality; multi-hazards coinciding with extreme heat and wildfire smoke events.
- Will have a dedicated epidemiologist and outreach coordinator/community involvement lead for the proposed

work

- Heat and Air Quality Resistance Project focuses on increasing resilience among vulnerable populations such as those without access to cooling or ventilation and those experiencing homelessness
- Provided overall logic models with key components for the HAQR and Supportive & Affordable Housing Best Practices Toolkit
- Has strong implementation science support through PRISE to examine efforts to reduce health disparities among affected populations

*Weaknesses of Section:*

The application relies heavily on the Core Component to explain the Component A actions and how they fit into the broader objectives. It would have been helpful to have more of a direct justification of these activities and why they were selected for the Component.

The application lacks sufficient detail to explain the reasoning behind the additional component.

*Recommendations for Section:*

*Other Relevant Comments:*

**Optional Component A – Expanded Implementation and Evaluation**

**Reviewers comments - Write and Implement an Adaptation Action and Evaluation Plans:**

*Strengths of Section:*

The Climate and Health Program APEP's will facilitate the implementation, evaluation, and improvement of identified adaptation using the evaluation framework and logic models proposed on page 10 and 24. APEPs will track progress through specific, measurable, achievable, relevant, and timebound objectives, identify evaluation activities and data sources, and establish a process to communicate changes to adaptations through yearly APEP updates. Capacity Lead will work with at least four LHDs to implement portions of the BRACE Framework in year one.

- Details that they will develop community of practice and plans to disseminate materials at conferences, journal articles, and white papers
- Also has shared information on the program website and has contractor to help expand reach of communications

*Weaknesses of Section:*

The proposal lacks sufficient detail to demonstrate how the adaptation action and evaluation plans will be made, instead referring to the core component only.

*Recommendations for Section:*

*Other Relevant Comments:*

**Optional Component A – Expanded Implementation and Evaluation**

**Reviewer’s comments - Identify, Use, and Disseminate Lessons Learned on Effective Adaptation Actions:**

*Strengths of Section:*

The Climate and Health Program APEP’s will facilitate the implementation, evaluation, and improvement of identified adaptation using the evaluation framework and logic models proposed on page 10 and 24. APEPs will track progress through specific, measurable, achievable, relevant, and timebound objectives, identify evaluation activities and data sources, and establish a process to communicate changes to adaptations through yearly APEP updates. Increased best practices dissemination through dedicated resources towards engagement with other LHDs to train them on the BRACE framework (Dissemination). Capacity Lead will work with at least four LHDs to implement portions of the BRACE Framework in year one.

- Will develop a guide for LHDs to implement the BRACE framework and pilot the training with the Travis County Health Department
- Defines that the Capacity lead will work with at least 4 local health departments to implement BRACE by end of year 1

*Weaknesses of Section:*

- Capacity lead is part time- will this be enough effort to

accomplish goals of working with 4 LHDs to implement BRACE in a year?

- The proposal lacks sufficient detail to demonstrate how evaluation findings will be used to improve adaptation action, instead referring to the core component only. There is only one dissemination activity described.

*Recommendations for Section:*

*Other Relevant Comments:*