Santa Clara County Public Health Department
Climate Change Planning and Vulnerability Assessment

Background
As the global climate crisis is upon us with increasing speed, action is needed at all levels of national, state and local governments to prepare, adapt and mitigate the impacts to come. In the coming decades, Santa Clara County (SCC) can expect increased temperature increases of up to 8°F, decreased precipitation by 6-5 inches, sea level rises of up to 66 inches, more frequent heat waves, and persistent destructive wildfires. These changes will impact SCC residents through increased heat-related illnesses, vector-borne illnesses, downstream consequences of drought, food insecurity, moldy buildings, lower indoor air quality, and socioeconomic disruption. In response, the Santa Clara County Public Health Department (SCCPHD) will conduct a climate health equity vulnerability assessment (CHEVA) to understand differing needs of our local cities and communities.

Project Description
Overview of Major Activities
This project focused at the planning/preparatory stage of SCCPHD’s climate vulnerability assessment. Specifically, a literature review of local research, data sources, and resources was performed to identify and rank climate indicators. A second literature review was conducted to identify best practices for evaluating community readiness and engagement to build community climate resilience. Finally, an evaluative tool was created and used to review fifteen city Climate Action Plans (CAPs) across Santa Clara County.

Climate and Health Indicators
A major component of implementing an equitable and sustained effort towards vulnerability assessment and climate change resilience planning requires intentional data collection and surveillance. Through a literature review of the state, county, and nearby Local Health Departments (LHDs), with particular focus on San Francisco Department of Public Health, this project proposes the following set of climate indicator indices, composed of 25 “primary” indicators and 39 general indicators.

Climate Resilience Readiness and Partnership Assessment
For successful collaboration, each of these stages SCCPHD needs to acknowledge power structures and historical harms, provide community compensation for input, ensure shared-decision making structures exist, share resources, and remain transparent.

Climate Action Plans
State policy and legislation such as AB 32, SB 32, SB 379 require jurisdictions to adopt greenhouse gas emission reduction, climate adaptation and resiliency strategies through a Climate Action Plan and/or a General Plan. An evaluation tool was developed to evaluate SCC city plans to enhance health and equity co-benefits when implementing current or future strategies. The tool closely follows models from the SCC Healthy Cities 2020 metrics and the San Diego Region Climate Action Plan Report Card. Of 15 cities, 13 had publicly-accessible CAP materials.

Climate Resilience Building
A literature review was also conducted for best practices in building community resilience and incorporating equity principles into their CHEVA. The main recommended areas of intervention:

- Surveillance
- Interdepartmental Collaboration
- Community Engagement and Education

For successful collaboration, each of these stages SCCPHD needs to acknowledge power structures and historical harms, provide community compensation for input, ensure shared-decision making structures exist, share resources, and remain transparent.

Lessons Learned
The literature review identified several best practices for conducting an equitable CHEVA including surveillance, broad interdepartmental collaboration across government departments, and intentional community engagement and education. In order to evaluate community readiness for climate action collaboration with SCCPHD, a peer-reviewed and widely implemented Community Readiness Manual was recommended moving forward. A new data surveillance system was proposed for SCCPHD to use in longitudinal monitoring of climate and health changes. Finally, an evaluation tool was developed and used to evaluate CAPs from cities across SCC. Consistently, CAPs are in general compliance with state regulations and propose broad sweeping greenhouse gas reducing interventions. However, plans rarely incorporate explicit measures to prioritize vulnerable populations and frontline communities.

Recommendations
The findings of this project support the need for community engagement at every level of planning from assessing and prioritizing community needs, reviewing appropriate indicators, and eventually designing interventions. Recommendations to the current proposed data surveillance, include reengineering indicators by climate change impact category (relevant to our local region) and constructing indices across broader categories to simplify the presentation of results. Finally, regulatory standardization of community-specific vulnerability and resilience measures in CAPs is necessary to standardize considerations of equity across plans.

Acknowledgements
I would like to thank the Santa Clara County Public Health Department for the opportunity to join their team as a part of the CHEVA project. This project would not have been possible without the mentorship of Sue Lowery and Bonnie Broderick. I would also like to acknowledge Stanford School of Medicine and the Office of Community Engagement for providing funding and logistical support to this project.

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