

Building Resilience Against Climate Effects (BRACE)

# Focus Group Facilitator Final Report

June 30, 2022

Climate Resilient Communities

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Vietnamese Voluntary Foundation (VIVO) focus group, June 6, 2022.

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## Introduction

This report summarizes the processes and findings of five focus groups conducted by Climate Resilient Communities (CRC) and its partnering organizations: International Children Assistance Network (ICAN), the Vietnamese Voluntary Foundation (VIVO), the Congregational Christian Church of American Samoa, Latinos United for a New America (LUNA), Community Agency for Resources, Advocacy, and Services (CARAS). These meetings were convened to gather information regarding knowledge and behaviors related to the connections between a changing climate and health, prior experiences with the health impacts of climate events, personal resiliency, and communication needs and preferences. Each focus group was convened intentionally with a focus on unhoused, low-income individuals, and individuals with disabilities.

In Santa Clara County, as throughout the world, it will be the people who lack the monetary and social resources to respond and adapt who will be most affected by the impacts of climate change. Low-income communities and communities of color are on the frontlines of air pollution burdens, extreme heat events, and are suffering more severe consequences from wildfire smoke exposure. These facts make the urgency and necessity of robust engagement with frontline communities a necessity for equitable and just climate adaptation.

The focus group meetings took place on June 1st, June 6th, June 7th, June 10th, and June 22nd of 2022. The sections that follow contain a summary of the methods and results of the five focus groups, as well as CRC's overall takeaways in terms of successes, challenges, and priorities for the next steps to be taken in the Climate Impact Compendium and the Heat and Air Quality Resilience Working Group (HAQR).

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## Methodology

### Participant Demographics

Those who participated in the focus group meetings represented the BRACE project's priority populations: older adults, parents of young children, low-income people, many of whom were living in inadequate housing, outdoor workers, unhoused individuals, people with disabilities and chronic health conditions, and South County and East San Jose residents. A total of 76 residents attended the five focus groups to have their voices heard and contribute to a process they hope will bring about substantial investment in protecting the health and safety of their communities against the impacts of climate change. The focus groups targeted specific sections of the community, based on the populations that each CBO served. The priority populations for each focus group was as follows:

**International Children Assistance Network (ICAN):** elderly East San Jose residents of the Vietnamese community; unhoused individuals (three individual interviews, separate from the focus group)

**Vietnamese Voluntary Foundation (VIVO):** low-income residents of the Vietnamese community

**Congregational Christian Church of American Samoa:** Pacific Islander community, focus on elderly + South County residents

**Latinos United for a New America (LUNA):** Latino community, East San Jose

**Community Agency for Resources, Advocacy, and Services (CARAS):** Low-income South County residents (primarily Gilroy), Latinx community

Great attention was paid to make the meetings as accessible as possible. Each CBO chose the venue of the focus group they were co-leading with CRC, often the CBO/agency's

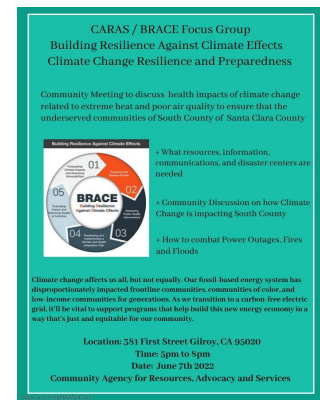
offices, places that are known and comfortable to an organization's constituents. At each focus group, dinner and drinks were provided and children (and, in one case, pets!) were welcome to attend. A \$50 gift card was provided to each participant to compensate them for their expertise and recognize that they were taking time out of their busy schedules to help inform public decision making. Without these accessibility measures, power asymmetries would be much more prevalent and the most marginalized residents would have had a greater difficulty attending. Each focus group was held in-language (two in Vietnamese, two in Spanish, and one in Samoan) to allow for comfortable conversation among participants.

## Outreach Methods

Each of the five CBOs managed outreach for their own focus group and leveraged their existing networks. For example, for LUNA's focus group, they included the focus group as part of an ongoing weekly adult class focusing on Climate Change and Environmental Justice Organizing. ICAN contacted residents who

had previously participated in their program by phone to spread the word about their event. To aid in outreach efforts, CRC created multilingual flyers to advertise each meeting. Several CBOs adapted this flyer to fit their specific community before distributing both digitally and physically to their residents to inform them about the details of the meeting. CRC has always found that the most effective form of outreach is through these existing relationships and speaking to people individually. When speaking with residents, they were informed about the purpose of the meeting, told about the importance of their participation and told they'd receive dinner and a gift card for participating. The CBOs found that speaking about the health impacts of climate change generated substantial interest, and were easily able to recruit the target audience of 10 individuals per focus group (in fact, several of the groups ended up being about 15-18 people each due to overwhelming interest).

## Facilitation Methods



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CRC and the CBO partners co-created the content and procedure for each focus group, tailoring the material and format to best fit each audience. CRC managed development of draft focus group materials, including an informational background presentation to ensure that all focus group participants have roughly the same level of knowledge, a draft list of questions (developed iteratively with input from the County), and a draft agenda/run of show for the focus group. Based on those initial materials, each CBO worked with CRC staff to make the focus group their own. Each focus group started with dinner, as one CBO representative noted that “breaking bread together” is a vital way to break the ice and make everyone feel comfortable in the room. Each meeting then consisted of an introduction and brief description of the meeting objectives, background information on climate change, and discussion on predetermined sets of questions and topics. Two of the organizations, VIVO and CARAS, chose to work with CRC to develop a survey/questionnaire handout for participants to fill out at the end of the meeting to keep track of their responses to some of the questions asked in the group, as well as any additional concerns.



Latinos United for a New America (LUNA) focus group, June 22, 2022.

## Focus Group Findings

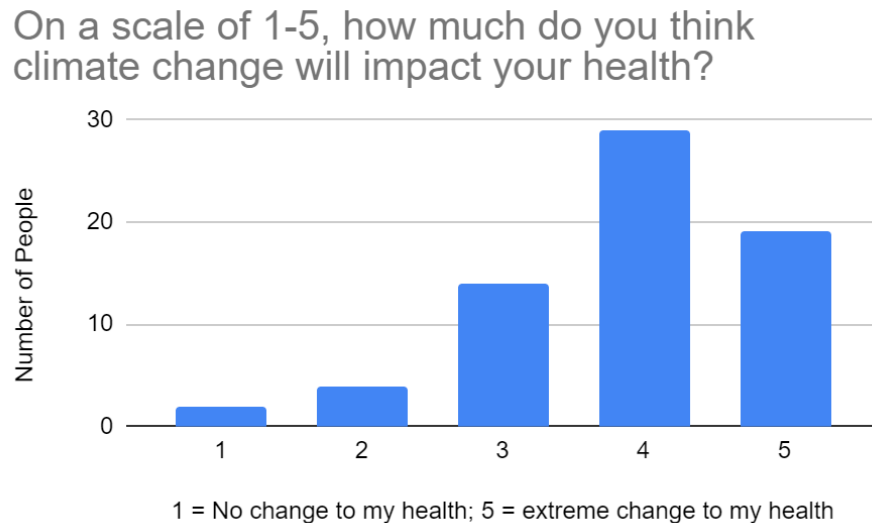
There were many strong patterns across discussions in all five focus groups. Each subheading below will discuss participant reflections around a specific topic area or question.

### Knowledge of Climate Health Impacts

Participants for each focus group responded to the question: *“What do you know about the health effects of climate change? Is this something you, your family, or anyone you know has already experienced?”*

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Focus group respondents had a basic grasp of some of the health consequences of climate induced events– most through first hand experience. Participants reported headaches, dizziness, dehydration, difficulty breathing, stuffy noses, and feelings of anxiety or depression. Many had seen family members, neighbors, and coworkers affected by poor air quality, extreme heat, and chronic pollution exposure. Participants in separate focus groups spoke about the hazardous combination of extreme heat and smoke– in those cases, residents without air conditioning were forced to choose between breathing air that made them sick, or staying inside hot and stuffy homes. In interviews with unhoused neighbors, they reported extreme difficulty dealing with the elements, having difficulty finding even the most basic resources like water and shade.



**Figure 1.** Exit polling results combined for three focus groups. Participants reported their thoughts on how much climate change would impact their health.

When asked in exit surveys about whether they thought that climate change would impact their health, the majority of participants surveyed (in three of the five focus groups) stated that they feared major or extreme changes in their health due to climate change (Figure 1). As described above, most participants had a fairly solid grasp on some of the health issues that could be impacted as a result of climate change and recognized the potential impacts on their own health. Of course, this polling took place after discussions and presentations, so it is possible that answers would have been different beforehand, but at the very least



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this polling indicates that the discussions were helpful in bringing these issues to the forefront of people's minds.

Many participants intuitively recognized the most vulnerable in their community– the elderly, young, and those with pre-existing conditions. “The old folks like us are being affected by this first. We get sick right when the weather changes,” said one participant from the ICAN group. Residents knew that outdoor workers and those with fewer resources would also be most adversely affected. The knowledge contained at the community level about the vulnerability of one's friends and neighbors is an extremely valuable resource and should be leveraged whenever possible.

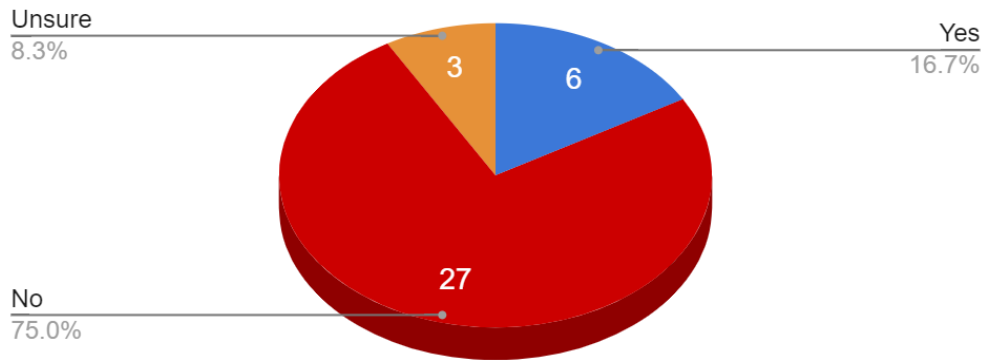
Community members understand, at a deep level, the interconnectedness of economic and environmental impacts. For example, they pointed out that droughts would make food more expensive, that power outages led to spoiled food, that flooding destroyed properties and made it impossible to get to work, and that healthcare to treat asthma or heat stroke can be very expensive. Participants recognize what affects their finances, affects their environment and health, and vice-versa.

### **Education/Resource Availability and Providers**

Participants were asked to respond to the following prompt: *“Do you remember getting any information on what to do during past wildfires, extreme heat, or poor air quality days? If so, where did you get the information from?”*

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## Do you remember getting information about what to do when the air quality is bad or it is very hot?



**Figure 2.** Exit polling results, combined for three focus groups. Participants reported if they received information about climate events.

Based on exit polling and participant responses, it was abundantly clear in each focus group that the majority of participants did not remember receiving information through a centralized source during an emergency, but instead relied on friends, neighbors, schools, and personal research to learn what was going on and what to do (Figure 2).

For the minority of participants that responded yes to this question, some consistent themes arose, which represent opportunities to build on existing programs that have shown their effectiveness. Most commonly, people who were subscribed to AlertSCC (SMS from the County) remembered receiving those messages. People also heard about it from their children’s schools (i.e., receiving alerts on smoky days to not come to campus or go outside during recess). Others received an alert through the Weather.com app, the local news, or by social media. Respondents at the LUNA group reported that “phone alerts and local news have been doing an excellent job of [keeping] the community up to date on events such as heat waves and cooling centers,” the respondent said. “I am grateful that I was alerted about a cooling center because I was able to pass this information over to my sister who needed to be at a cooling center.” Here we see the vital relationship between community expertise and connectedness and resources from the county. The more people who have access to vital health information, the more they can facilitate the “last-mile” conversations to get that information to those with the greatest need.

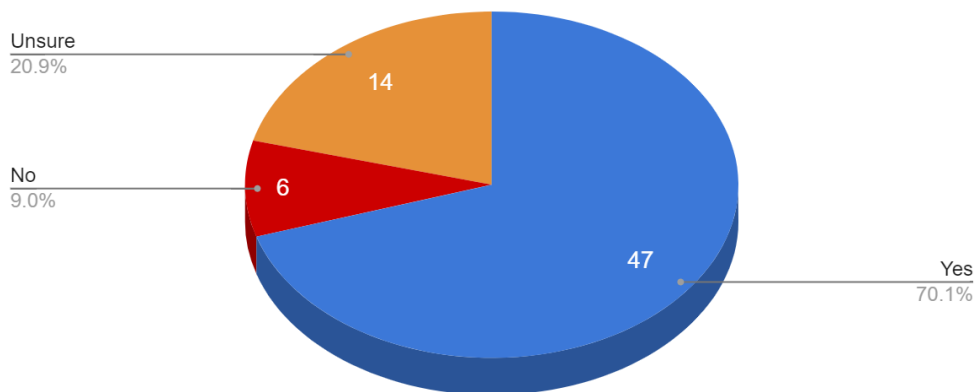
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For those who did not receive information, there are even greater opportunities to forge creative solutions that get people the information they need. Many in the CARAS group expressed “that there is simply no focus, resources, services, or programs from city stakeholders or communities.” 15 of the 18 participants in that group said they did not know what to do if faced with wildfires, extreme heat, or poor air quality and 12 did not know where to find information about these events. Residents at the Samoan Church and VIVO groups said they did not remember hearing any information about power outages or smoke events but that they want that information and clear communication about the potential health impacts. Across all groups, residents felt they were left on their own to figure out how to navigate experiences of climate extremes. “There is very little information or advice about what to do in an emergency, especially in our low-income community,” said one CARAS participant.

### Prior Experience & Adaptive Capacity

Participants were asked to respond to the following prompt: *“Have you or anyone you know been impacted by climate hazards like wildfire smoke, heat waves, or poor air quality? What was that like?”*

Have you or anyone you know already been impacted by climate hazards like wildfire smoke, heat waves, or poor air quality?



**Figure 3.** Exit polling results, combined for three focus groups. Participants were asked if they had already experienced climate hazards.

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When asked to recall specific instances of having to adapt to climate hazards without strong guidance or resources, many residents told sincere stories of fear and uncertainty. During power outages CARAS participants explained how their kids were scared, their food spoiled, and how they didn't have an emergency kit or know what should go into one. They said they felt trapped in their homes when smoke blotted out the sky for days on end. In the ICAN group residents reported how difficult it was to breathe during the fires, how their eyes stung and they didn't want to go outside. They were worried about their babies and children breathing the smoke and didn't want to touch the ash that settled on their cars. "More families are getting sick because of the different contaminants in the air. We are becoming saturated with polluted air," said one East San Jose resident.

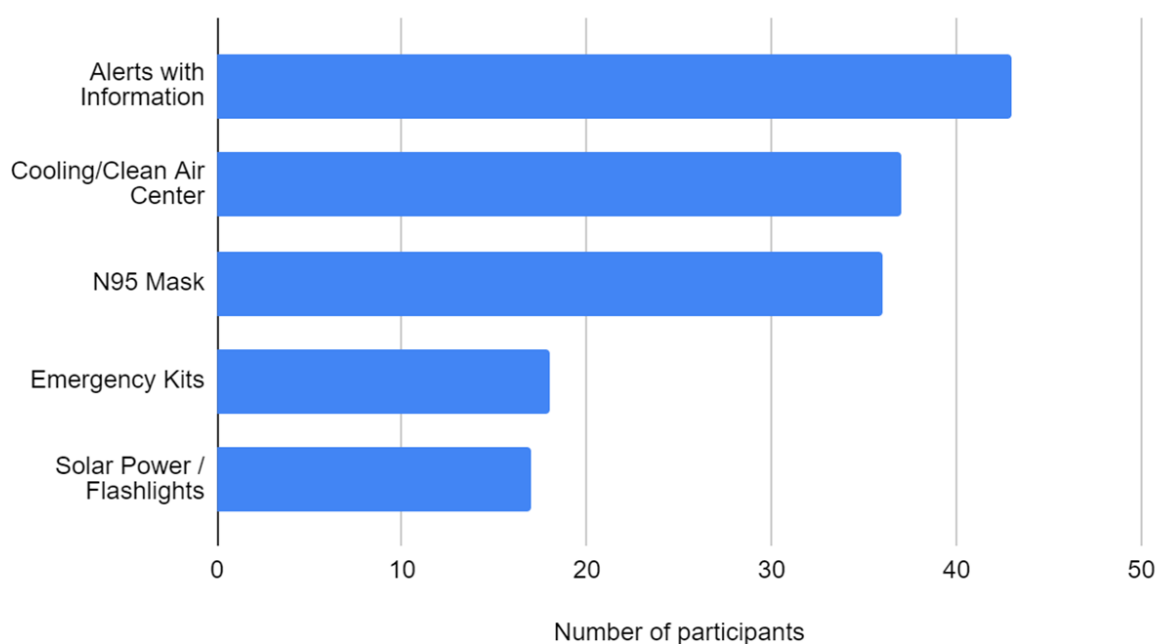
Unhoused participants said that the heat and poor air quality made their asthma and COPD much worse, and that both shade and water were difficult to come by– the city has removed some public water facilities and the police will remove you any time you find a shady enough place to rest. Participants at the Samoan Church said they were worried for their elderly relatives who are less able to keep their bodies cool and might have to go to the hospital. Participants at the VIVO group said similar things– the combination of polluted air and long hot days make it brutal to go without air conditioning or be an outdoor worker.

### **Community Resiliency / Recovery and Response**

Participants were asked to respond to the following prompt: *"What does the community need to be better prepared for the future?"*

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## What do you most need when a climate emergency happens?



**Figure 4.** Exit polling results, combined for three focus groups. Participants reported what they needed in the case of a climate emergency.

Turning towards opportunities to address these gaps, residents were vocal about the resources they need to protect their families. Residents wanted places of refuge for clean air, power, and cooling during extreme events. Ideally these would be located in places that are already well known to the community and places that make it convenient and comfortable to stay for long periods— libraries, community centers, malls, churches and schools. Once these places exist, they have to be well promoted and publicized during the extreme events. Ideally these centers could be true hubs of resilience, offering educational materials, N95 masks for smoke, flashlights and food for power outages. As one community member pointed out, a huge need is “more education for marginalized communities ... and giving them supplies. Many people in these communities cannot afford their basic needs.” In addition to providing key resources, participants emphasized accessibility of resilience hubs/cooling centers as a main concern. Input from unhoused neighbors, in particular, pointed to accessibility issues with existing centers: “Cooling stations used to be easy to go to but now they ask you a million questions before letting you in even though you just want to cool down.” Transit, too, is not always easy if there are only one or two places to go (and are not necessarily close to public transportation).

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Participants at the Samoan Church were uncertain that any cooling centers even existed, but the church itself was prepared to open its doors to the public provided they could get the necessary retrofits to make it an effective resilience hub.

We previously touched on the importance of community knowledge and expertise in connecting community members who most need it to the resources available. Educating and empowering existing community leaders and CBOs is another great way to facilitate this process. “Education allows the community to become active participants in climate resilience,” said one LUNA participant. An informed leader, parent, teacher, or elder can connect the people in their network with the resources they most need, who can, in turn, connect others. In the CARAS group, one participant remarked on the “importance of the community to be a part in preparations together as climate effects happen, and to create community leaders” to build community capacity. In doing so, we should make educational/capacity building opportunities as accessible as possible, particularly the currently/previously unhoused or incarcerated. Unhoused people and incarcerated people are on the frontlines of climate change in every city in California, for the former as a result of direct exposure, and the latter through the use of incarcerated firefighters and a [prison system poorly designed for climate resilience](#). “Bring people who are/were on the street into decision making processes, ask for more ideas and make them feel included. They know what it is like more than anyone else,” said one unhoused community member.

Another key aspect of the educational and capacity building needs is the necessity that these programs be sustained and long standing. One-off workshops are a great start for education, but repeated programs and sustained capacity building work is the most effective way to ensure these lessons are not forgotten. The Samoan Church emphasized the importance of getting the youth involved in these conversations, so they can participate in their community and build lifelong skills. Raising awareness and building capacity go hand in hand and are mutually reinforcing goals. Awareness is this first step toward understanding and capacity, but once that capacity is built, residents can raise the awareness of these issues within their own networks, connecting their neighbors with the resources they need. “We should have programs for the community, make sure awareness is spread so that people consider it more,” said one ICAN participant, touching on the need to support the creation and growth of these networks.

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Another way to raise awareness of the health consequences of climate events, and a more immediate and tangible opportunity for public health intervention, is through a robust emergency alerting system. The infrastructure around opt-in emergency alerting is robust, but engagement, particularly from under-resourced communities, seems to be fairly low. The system could benefit from concerted community outreach to address these disparities. Contracting with CBOs that already have extensive networks and deep community trust could be an excellent opportunity to enroll more people in the system and leverage the existing infrastructure to better serve those on the frontlines of climate extremes. In the CARAS group, participants were excited about an idea of having a smartphone app to “receive climate notifications of what is happening and also where to go in obtaining critical resources.” Participants envisioned that this notification system would be a centralized place to receive clear messaging not only about outages and emergency events, but also clear guidance and preemptive education about home emergency preparedness, when it is safe to exercise and go outside based on air quality, and how to get involved in community preparedness efforts.

**Table 1.** High-level summary table of community needs & project ideas discussed across each focus group. Topics that came up in a given focus group are marked with a check mark.

	More Cooling / Clean Air Centers	Accessibility of Cooling Centers	Ongoing community engagement	Youth Engagement	Emergency Alerts	Alerts through trusted CBOs	Give out Emergency Preparedness Supplies or Advice	Consistent messaging and educational materials	Network of Climate Providers
Latinos United for a New America (LUNA)	✓		✓	✓	✓		✓		✓
International Children Assistance Network (ICAN)	✓	✓	✓		✓	✓	✓		
Vietnamese Voluntary Organization (VIVO)	✓	✓	✓		✓		✓	✓	
Community Agency for Resources, Advocacy, and Services (CARAS)	✓	✓	✓	✓	✓	✓	✓		✓
Congregational Christian Church of American Samoa	✓		✓	✓	✓	✓		✓	



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## Recommendations

Based on the cumulative results of the five focus groups, the following section details CRC's recommendations of future programs and policy directions for the BRACE project, Climate Impact Compendium, and/or Heat and Air Quality Resilience Working Group (HAQR) to consider.

### **Continue to engage these 5 CBOs in ongoing work.**

Our greatest takeaway from the focus groups was simple: residents and CBOs are eager to be a part of these conversations. For several of the organizations who partnered with CRC to deliver the focus groups, this was their first significant project dealing with climate change, while for others this is an ongoing organizational commitment. Specifically, these groups are craving ongoing engagement, training, and capacity building over one-off events and workshops. This could take the form of ongoing Climate Leadership training through BRACE or other opportunities.

### **Prioritize tangible, actionable programs.**

In each of the focus groups, residents described how the most effective policies would be those that tangibly provided materials/resources, including cooling centers, emergency preparedness supplies, N95 masks, and food/water. These types of initiatives would deploy resources immediately to those who need it most and result in health-adaptive behaviors to be adopted quickly and efficiently. CRC is investing in these types of initiatives in our work in San Mateo County as well, particularly around the idea of community resilience hubs. Other ideas include distributing air purifiers to homes, sign up people for emergency alerts, and giving out educational materials during heat/smoke events about how to stay safe and workers' rights.

### **Leverage existing community spaces and groups.**

Among the communities the focus groups were conducted in, there was a great deal of energy about empowering community leaders, both individually and organizationally. In all of the in-person focus groups (VIVO, CARAS, LUNA, Samoan Church), facilitators and participants were excited about the possibility of turning the CBO space where the meeting

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was being held into a “resilience hub” – a space for people to turn to for supplies, information, and cool/clean air. Future programs could include funding for CBOs to renovate their spaces and be able to distribute supplies. This strategy has the advantages of meeting the community where they are at (in already-known, comfortable spaces) with people they are already comfortable with (CBO leaders who often come from their own community).

### **Put concerted effort into expanding use of AlertSCC in underresourced communities.**

Participants in the focus groups who were subscribed to AlertSCC consistently found it useful. However, the vast majority of participants had not heard of it or were not subscribed. The infrastructure for a robust, widely utilized alert system is there, and would address many community concerns; however, a concerted drive to get people to subscribe to AlertSCC could help get climate hazard information into more hands. A campaign could tap into existing CBOs and community networks and especially try to focus on underresourced communities. The current opt-in/sign-up system likely limits most participants to those who are more technologically-savvy and it will be important to reach new audiences.

### **Develop clear, consistent informational materials for distribution about climate & health issues.**

Many focus group participants received information about climate hazards from many different sources, including by word of mouth and interpersonal networks. This often left individuals confused as they received somewhat differing information depending on who they talked to. A consistent set of materials and information that could be distributed door-to-door (such as door hangers, fridge magnets, brochures, pocket-size wallet cards) as well as digitally (social media) would provide consistent messaging and guidance to individuals. These materials could be distributed to CBOs to pass out through their communities to ensure extensive reach.

### **Ensure culturally appropriate and language-specific outreach methods and materials.**

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For these focus groups, we worked with local CBOs to ensure that all materials for each focus group were specifically geared towards the cultural context of focus group participants. Each focus group was language-specific and held in participants' native language to allow for comfortable, open dialogue. Alongside offering food at all the focus groups, hosting each focus group in-language immediately makes participants feel more comfortable and as though they are in their own community, not performing for outsiders. Going forward into future projects, CRC recommends continuing to use this strategy in order to glean the most from events like these. When people are most comfortable, they will share information that otherwise would not be able to get across.

### **Nurture a Network of Climate Providers**

A broader takeaway from the focus group process is that there are many organizations independently working on, and interested in, climate change issues. However, there isn't always an opportunity to share projects, resources, and interests across CBOs (as well as jurisdictions and cities). The value of this system cross-cuts across multiple recommendations here – campaigns to get subscribers to AlertSCC, or spread the word about cooling centers, or finding locations to serve as resilience hubs ALL would benefit from an information sharing network to better allow for collaboration and large-scale, countywide projects. This will prevent individual CBOs from “reinventing the wheel” and fully understand the landscape of work in the climate space within the County. Such a project could take place through the new County Collaborative or as a separate group. This group should provide resources for smaller CBOs to build up their capacity and programming and to engage with the group, as well as providing for a CBO-focused space such as through a working group to promote relationship building and aid-sharing.

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## Lessons Learned

### 1. The importance of ongoing engagement

As was stated in the mid-grant report, we found in conversations that many CBOs were interested to learn how the project might continue after the conclusion of the focus group – i.e., what were opportunities to stay involved in these conversations and with the BRACE project. The five CBO partners have varying degrees of experience working in the climate change & health space – for some, this is a part of their regular operations, for others, the first time thinking about this issue. Especially for those just starting out, they wanted to hear from CRC what opportunities might exist in the future to turn these conversations with community members into tangible programs and projects. Including these groups in conversations as social media toolkits, educational materials, or the Leadership Academy is developed will go a long way into ensuring that these organizations continue to have the chance to develop their climate expertise and continue sharing that information with their constituents.

Fundamentally, one focus group is just a drop in the bucket of what is hopefully more meaningful engagement. Creating opportunities for smaller, local CBOs is a very important value for CRC, and we believe that the results of these focus groups validates this approach – that with resources and support, CBOs are fully willing and excited to be involved in this work. Continuing to provide support and ongoing projects will ensure that this development continues and that climate change education and resilience reaches all communities across the County.

### 2. The importance of networks

Once CRC had connected with CBO partners who were interested and had the capacity to take part in this project, we were amazed at how easily the pieces came together for each individual group. We attribute this ease to the extent to which CBOs are able to tap into existing networks to find participants and know specific community members or groups of people who would be interested in given topics. Taking advantage of these strong interpersonal networks and relationships was a key attribute of the success of this project. By “subcontracting” with the five CBOs, CRC was able to easily reach communities that

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otherwise would have been out of reach – it is the ongoing work, programs, and relationships in the community that small, specialized CBOs excel at that is best in these instances and should be noted as a good strategy to reach hard-to-reach demographics. Despite the accelerated timeline of this project, on the whole it flowed smoothly because we were able to find the right partners to tap into community networks.

### **3. The importance of language-specific groups**

As with previous projects, these focus groups affirmed for us at CRC that conducting focus groups in-language, embedded in places that people already feel comfortable in, is the best strategy both for gleaning useful and actionable information but also for making participants feel welcomed and valued. Each focus group was held in participants' native / most comfortable language which allowed them to share experiences they might not have had the words to convey in English (or desire to do so). For us, this is an ongoing lesson that this strategy works well and should continue to be utilized.

### **4. Finding the right timeline**

While we are amazed to see the work was able to happen in a short three month grant period, when possible, it would work better and allow for more robust community engagement to be on a slightly longer timeline. Three-month projects are not necessarily sustainable for CBOs in the long run because of the “sprint to stop” feeling, and finding ways to continue to stay involved in the project longer term is both more realistic for the pacing of most nonprofit work and more fulfilling for partners who feel involved in something meaningful and taking place over time.

### **5. Need for ongoing educational efforts**

While quite a few participants of the focus groups had some background understanding about climate change and its impacts, this is likely due to their ongoing engagement with our CBO partners, or to the types of people that this type of forum attracts. Based on participant reflections, the majority of these communities do not receive information on these issues. Ongoing needs to educate the community on the causes and consequences of climate change, as well as exposure to underlying data, especially local data, is vital to ensure that all communities are able to respond and adapt to climate change, not just

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those who have the time and resources to seek that information out themselves. This idea relates strongly to CRC's other programs, but was not something we had anticipated feeling so keenly through the focus groups. Many individuals are undereducated when it comes to science, climate change, and health, representing an avenue forward for future work.

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## Appendices

### Focus Group Guiding Questions

- What is working well in your community? What do you like about living here? What makes you feel safe?
- What isn't working? What makes you feel unsafe?
- What do you know about the health effects of climate change? Is this something you, your family, or anyone you know has already experienced?
- Do you remember getting any information on what to do during past wildfires, extreme heat, or poor air quality days? (Information like remain indoors, visit a cooling center) If so, where did you get the information from?
- Have you or anyone you know been impacted by climate hazards like wildfire smoke, heat waves, or poor air quality? What was that like?
- What does the community need to be better prepared for the future? (e.g., earlier notice on planned outages, education on home preparedness kits, etc.)

These questions were translated into Vietnamese, Spanish, and Samoan for use in those focus groups.

[BRACE Presentation for CBO Partners](#)

[Background Presentation for Focus Groups](#)

[HAQR Presentation Slides](#)

# BRACE FOCUS GROUP FACILITATOR MEETING

May 18, 2022

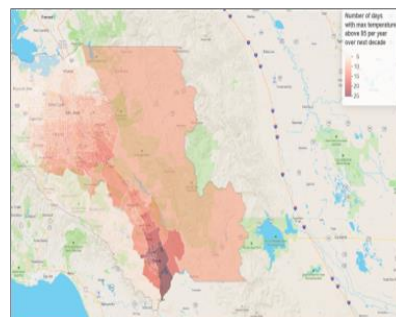
## BUILDING RESILIENCE AGAINST CLIMATE EFFECTS

### Goal

Build and enhance resilience to the health impacts of climate change related to extreme heat and poor air quality.

### Priority Populations

- ❑ Young children
- ❑ Older adults
- ❑ Low-income persons living in inadequate housing
- ❑ Pregnant women
- ❑ Outdoor workers
- ❑ Unhoused
- ❑ Persons with disabilities or chronic health conditions (e.g., asthma, diabetes)
- ❑ South County and East San Jose residents





# EXTREME HEAT

In a medium emissions scenario, Gilroy could experience **24 extreme heat days** by 2050 compared 4 historically

Scenario	Historical Average # of Extreme Heat Days	Projected # of Extreme Heat Days by 2050	Projected # of Extreme Heat Days by 2100
B1	4	24	43
A2	4	33	73

Source: Cal-Adapt, 2013

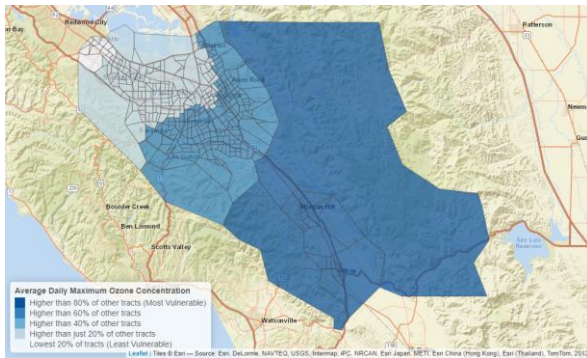
Emissions Scenario	Historical Average # of Warm Nights	Projected # of Warm Nights by 2050	Projected # of Warm Nights by 2100
B1	4	41	62
A2	4	54	131

Source: Cal-Adapt, 2013

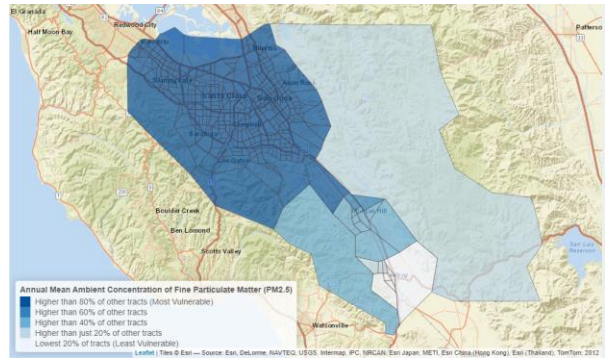
<https://siliconvalleytwopointzero.org/climatechange/extremeheat>

# AIR QUALITY

Average Daily Maximum Ozone Concentration is Highest in South County



Annual Mean PM2.5 is highest central and northern regions of the county



View additional data at city and census tract levels here:

<https://skylab.cdph.ca.gov/CCHViz/>

## EXPOSURE & SENSITIVITY

Increased exposure from environmental impacts of climate change combined with high population sensitivity lead to increased overall vulnerability to climate impacts

ENVIRONMENTAL EXPOSURES	<b>Extreme Heat Days</b>	Projected number of extreme heat days <sup>1</sup>
	<b>Air Quality (PM<sub>2.5</sub>)</b>	Three-year annual mean concentration of particulate matter (PM <sub>2.5</sub> ) <sup>3, 5</sup>
	<b>Air Quality (ozone)</b>	Three-year ozone concentration exceedance above state standard <sup>2, 4</sup>
	<b>Wildfires</b>	Percent of population currently living in high risk fire hazard zone <sup>4, 6</sup>
	<b>Sea Level Rise</b> (in coastal areas)	Percent of population living in 100-year flood zone and 55 inches of sea level rise <sup>12, 8</sup>
POPULATION SENSITIVITY	<b>Children</b>	Percent of population aged less than 5 years <sup>7</sup>
	<b>Elderly</b>	Percent of population aged 65 years or older <sup>7</sup>
	<b>Poverty</b>	Percent of population whose income in the past year was below poverty level <sup>7</sup>
	<b>Education</b>	Percent of population aged ≥ 25 years with less than high school educational attainment <sup>7</sup>
	<b>Outdoor Workers</b>	Percent of population employed and aged ≥ 16 years working outdoors <sup>7</sup>
	<b>Vehicle Ownership</b>	Percent of occupied households with no vehicle ownership <sup>7</sup>
	<b>Linguistic Isolation</b>	Percent of households with no one aged ≥ 14 years speaking English <sup>7</sup>
	<b>Physical Disability</b>	Percent of population with physical disability (ambulatory disability) <sup>7</sup>
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ADAPTIVE CAPACITY	<b>Violent Crime Rate</b>	Number of violent crimes per 1,000 residents <sup>8</sup>
	<b>Air Conditioning</b>	Percent of households without air conditioning <sup>9, 6</sup>
	<b>Tree Canopy</b>	Percent of area not covered by tree canopy <sup>10, 4</sup>
	<b>Impervious Surfaces</b>	Percent of area covered by impervious surfaces <sup>10, 6</sup>

## CORE COMPONENTS

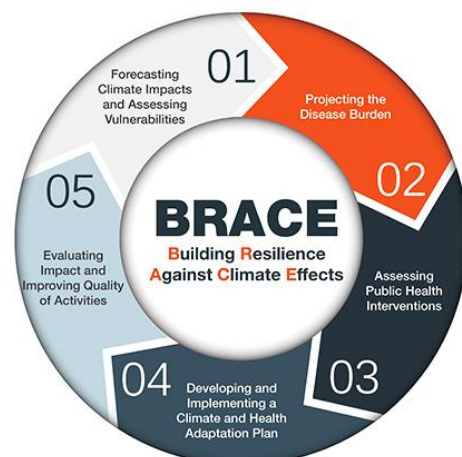
### I. Enhance Organization Infrastructure

- ❑ Build internal capacity
- ❑ Prioritize climate and health
- ❑ Provide leadership
- ❑ Enhance and expand partnerships

### II. Planning & Implementation of Actions

- ❑ Compile evidence, data, and best practices
- ❑ Implement adaptation actions
  - Community Services and Resources
  - Communications
  - Education & Instruction

### Building Resilience Against Climate Effects



## Focus Groups

7

### Questions:

- What is working well in your community? What do you like about living here? What makes you feel safe?
- What isn't working? What makes you feel unsafe?
- What do you know about the health effects of climate change? Is this something you, your family, or anyone you know has already experienced?
- Do you remember getting any information on what to do during past wildfires, extreme heat, or poor air quality days? (Information like remain indoors, visit a cooling center) If so, where did you get the information from?
- Have you or anyone you know been impacted by climate hazards like wildfire smoke, heat waves, or poor air quality? What was that like?
- What does the community need to be better prepared for the future? (e.g., earlier notice on planned outages, education on home preparedness kits, etc.)

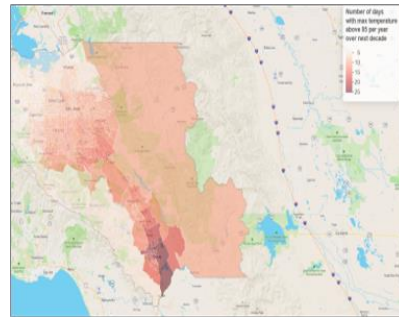
# BUILDING RESILIENCE AGAINST CLIMATE EFFECTS

## Goal

Build and enhance resilience to the health impacts of climate change related to extreme heat and poor air quality.

## Priority Populations

- ❑ Young children
- ❑ Older adults
- ❑ Low-income persons living in inadequate housing
- ❑ Pregnant women
- ❑ Outdoor workers
- ❑ Unhoused
- ❑ Persons with disabilities or chronic health conditions (e.g., asthma, diabetes)
- ❑ South County and East San Jose residents



## EXTREME HEAT

In a medium emissions scenario, Gilroy could experience **24 extreme heat days** by 2050 compared 4 historically

Scenario	Historical Average # of Extreme Heat Days	Projected # of Extreme Heat Days by 2050	Projected # of Extreme Heat Days by 2100
B1	4	24	43
A2	4	33	73

Source: Cal-Adapt, 2013

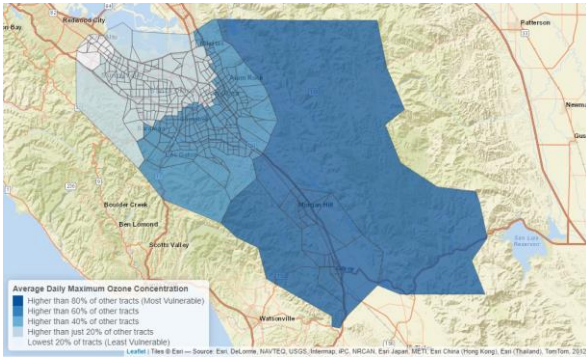
Emissions Scenario	Historical Average # of Warm Nights	Projected # of Warm Nights by 2050	Projected # of Warm Nights by 2100
B1	4	41	62
A2	4	54	131

Source: Cal-Adapt, 2013.

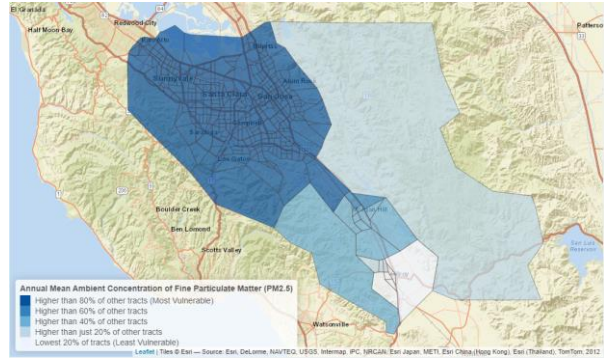
<https://siliconvalleytwopointzero.org/climatechange/extremeheat>  
at

# AIR QUALITY

Average Daily Maximum Ozone Concentration is Highest in South County



Annual Mean PM2.5 is highest central and northern regions of the county



View additional data at city and census tract levels here:  
<https://skylab.cdph.ca.gov/CCHViz/>

# EXPOSURE & SENSITIVITY

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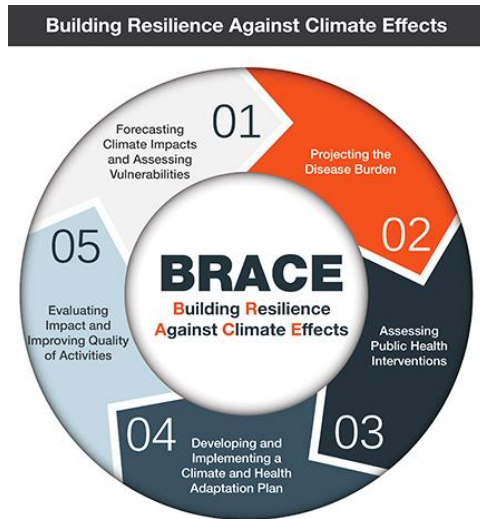
## CORE COMPONENTS

### I. Enhance Organization Infrastructure

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- Prioritize climate and health
- Provide leadership
- Enhance and expand partnerships

### II. Planning & Implementation of Adaptation Actions

- Compile evidence, data, and best practices
- Implement adaptation actions
  - Community Services and Resources
  - Communications
  - Education & Instruction





*On a scale of 1-10...*

*How worried are you about climate change?*

**1 = not worried**      **10 = very worried**

*How much do you think climate change will harm you personally?*

**1 = not at all**      **10 = a great deal**

1. Solar radiation (energy) from the sun passes through the atmosphere

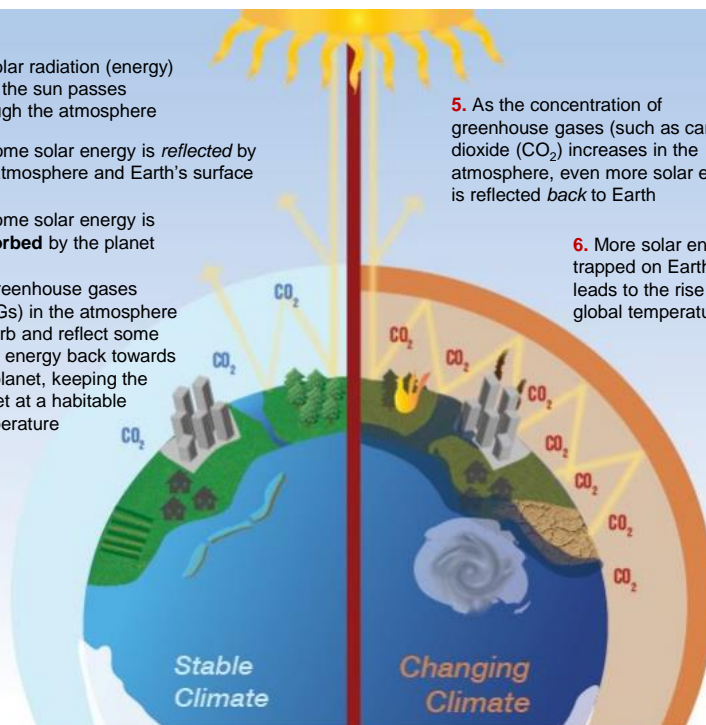
2. Some solar energy is *reflected* by the atmosphere and Earth's surface

3. Some solar energy is **absorbed** by the planet

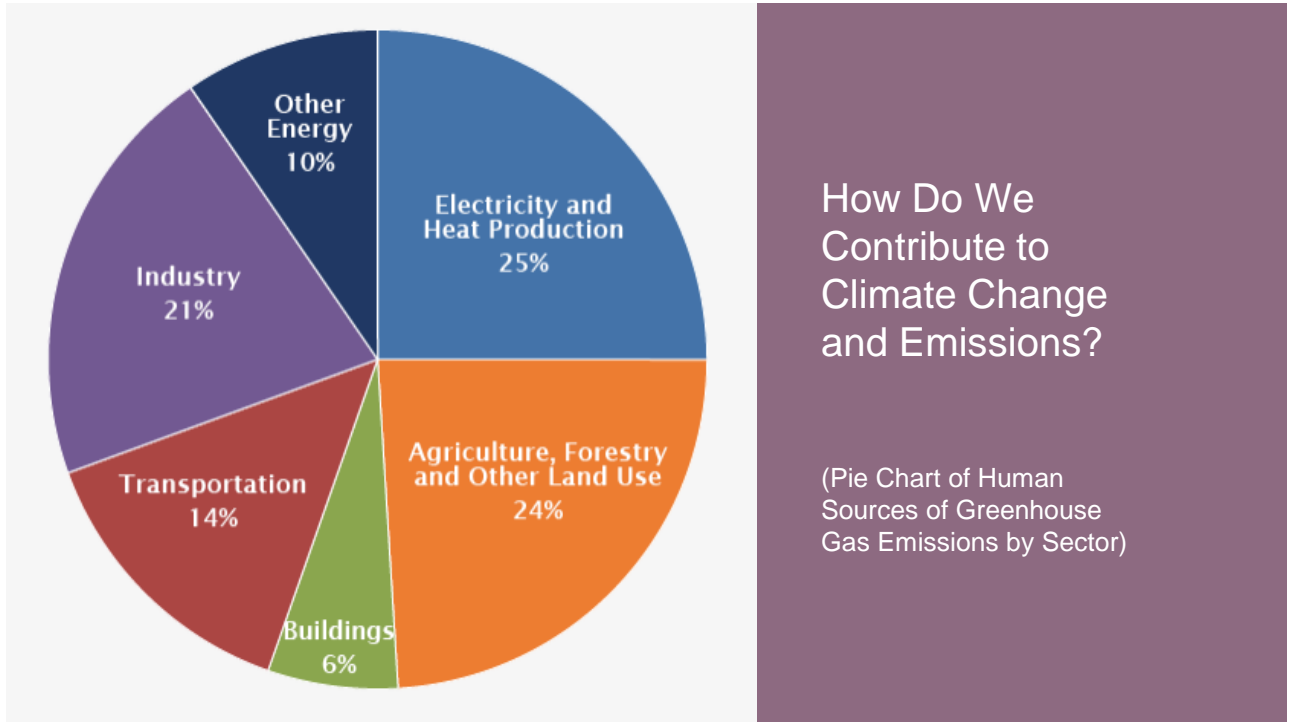
4. Greenhouse gases (GHGs) in the atmosphere absorb and reflect some solar energy back towards the planet, keeping the planet at a habitable temperature

5. As the concentration of greenhouse gases (such as carbon dioxide (CO<sub>2</sub>)) increases in the atmosphere, even more solar energy is reflected *back* to Earth

6. More solar energy trapped on Earth leads to the rise of global temperatures



How does climate change happen?



## Greenhouse Emissions and CO<sub>2</sub>

We all contribute to the production of **Greenhouse gases** in our every day lives







# Effects of Climate Change

## Impacts of Climate Change

- More droughts, heat waves & fire risk
- Changing growing seasons
- Changing precipitation patterns
- Less ice
- Sea level rise
- Threats to habitats, animals and ocean



# Climate Change & Human Health

Climate change might already be impacting you and your family's health:

- Wildfire smoke
- Extreme heat
- Pollution
- Worsening water quality
- Mental Health issues
- Increased Flooding
- Increased allergies
- More pests
- Stress



## Not All Equally Vulnerable

- **Environmental Racism:** The disproportionate impact of environmental hazards and pollution on communities of color, and lack of access to clean natural resources and spaces for these communities
- **POC, immigrant, low-income, and non-English speaking communities are more vulnerable because they:**
  - Live in areas most vulnerable to climate change
  - Less ability and options to relocate after disasters
  - Have higher levels of health risks which make them more susceptible to environmental pollution and toxins while having adequate access to healthcare services.



# What can we do about it?

---

“Adaptation”

&

“Resilience”

*What can we do to address the challenges ahead?*

---

*How can we ensure that our communities have what they need to respond to challenges and thrive?*

# Climate Change in Santa Clara County

High-energy waves created by the El Niño storms from 2012 to 2016 prompted unprecedented **beach erosion.**

Moisture levels in California declined to the lowest point in more than **1,000** years because of the drought from 2012 to 2016.



Coastal fog in the Bay Area has become less frequent.

## How is **climate change** affecting the Bay Area?

Effects of climate change that Bay Area residents are already experiencing, according to the San Francisco Bay Area Region Summary Report.

In the last 100 years, the sea level in the Bay Area has risen **8 inches.**

Since 1950, the average annual maximum temperature in the Bay Area has increased by **1.7 degrees F.**

Over the past **80** years, the Bay Area land burned during "large-fire" years has continued to increase.

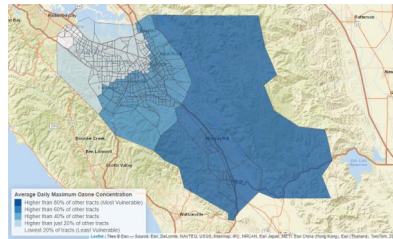
Shawn Lien/Staff  
Source: Berkeley News Article  
(\*UC Berkeley leads new assessment of Bay Area climate impacts\*)

# Major Issues: Extreme Heat and Air Quality

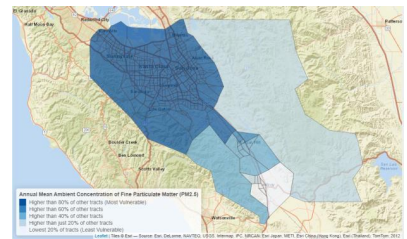


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Average Daily Maximum Ozone Concentration is Highest in South County



Annual Mean PM2.5 is highest central and northern regions of the county





## Building Resilience Against Climate Effects (BRACE) Focus Group Findings

Violet Saena  
 Founder & Executive Director  
[violet.saena@crc.acterra.org](mailto:violet.saena@crc.acterra.org)

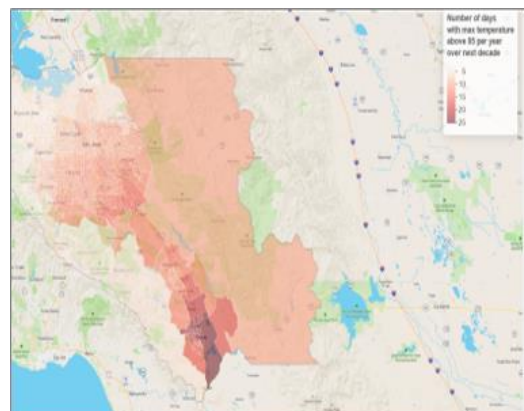
### Focus Group Overview

#### PROJECT GOAL

Build and enhance resilience to the health impacts of climate change related to extreme heat and poor air quality.

#### PRIORITY POPULATIONS

- ❑ Young children
- ❑ Older adults
- ❑ Low-income persons living in inadequate housing
- ❑ Pregnant women
- ❑ Outdoor workers
- ❑ Unhoused
- ❑ Persons with disabilities or chronic health conditions (e.g., asthma, diabetes)
- ❑ South County and East San Jose residents




Organization	Focus Group Date	Site	Participant Groups
Latinos United for a New America (LUNA)	June 22, 2022	1692 Story Rd, San Jose, CA 95122	Latinx community, East San Jose
International Children Assistance Network (ICAN)	June 1, 2022	Virtual + one-on-one in-person interviews for unhoused	Vietnamese community, focus on the elderly and unhoused
Vietnamese Voluntary Organization (VIVO)	June 6, 2022	In person, VIVO Office	Vietnamese community
Community Agency for Resources, Advocacy, and Services (CARAS)	June 7, 2022	381 First Street, Gilroy CA 95020	Low-income South County residents
Congregational Christian Church of American Samoa	June 10, 2022	In person at the church	Pacific Islander community, focus on elderly + South County residents

We want to hear from you!

Join ICAN for a conversation about

## HOW CLIMATE CHANGE IS IMPACTING YOUR HEALTH




The County of Santa Clara is working to build resilience to the health impacts of climate change related to extreme heat and poor air quality. Have you experienced wildfire smoke, very hot days, or air pollution? Come share your thoughts about what the County can do to prepare for the future.

JUNE 1, 2022  
VIA ZOOM

### CARAS / BRACE Focus Group

#### Building Resilience Against Climate Effects Climate Change Resilience and Preparedness

Community Meeting to discuss health impacts of climate change related to extreme heat and poor air quality to ensure that the underserved communities of South County of Santa Clara County



- + What resources, information, communications, and disaster centers are needed
- + Community Discussion on how Climate Change is impacting South County
- + How to combat Power Outages, Fires and Floods

Climate change affects us all, but not equally. Our fossil based energy system has disproportionately impacted frontline communities, communities of color, and low-income communities for generations. As we transition to a carbon-free electric grid, it'll be vital to support programs that help build this new energy economy in a way that's just and equitable for our community.

Location: 381 First Street Gilroy, CA 95020  
Time: 5pm to 8pm  
Date: June 7th 2022  
Community Agency for Resources, Advocacy and Services

[www.santacleara.com](http://www.santacleara.com)

## BRACE Focus Group Topics

1. Knowledge of Climate Health Impacts
2. Prior Experiences with Climate Events
3. Communications Needs and Preferences
4. Community Resiliency & Adaptive Capacity

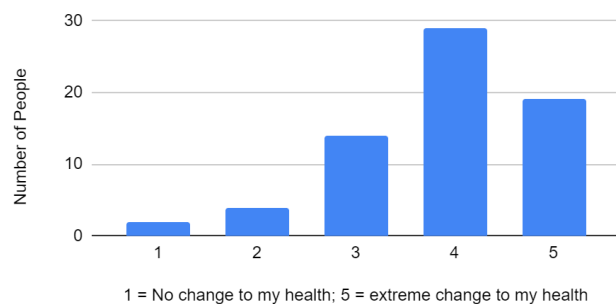


LUNA Focus Group, June 22, 2022

## 1. Knowledge of Climate Health Impacts

- Overall, participants in the focus groups **were already aware** about some climate & health issues.
  - Especially air pollution, heat, and asthma.
- “The old folks like us are being affected by this first. We get sick right when the weather changes.” (VIVO)

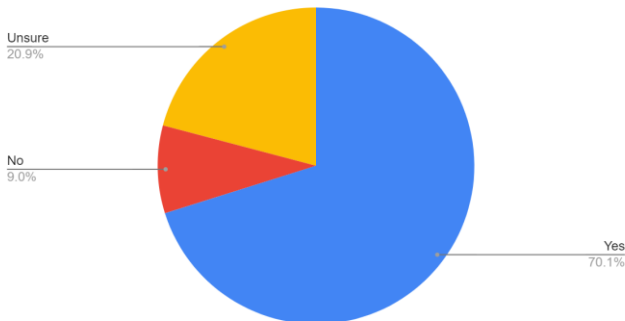
On a scale of 1-5, how much do you think climate change will impact your health?





## 2. Prior Experiences with Climate Events

Have you or anyone you know already been impacted by climate hazards like wildfire smoke, heat waves, or poor air quality?

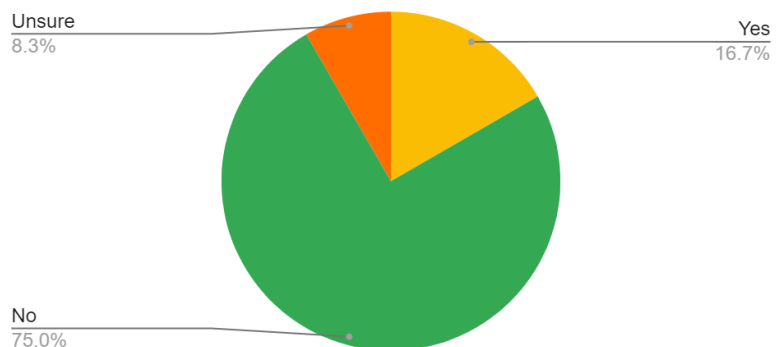


- “My son in law bought **duct tape to tape the windows, doors, slid[ing] doors** to prevent smoke from coming inside the house.” (ICAN)
- Unhoused participants **recounted difficulty finding shade and water** during heat events. (ICAN)
- “More families are getting sick because of... the different contaminants in the air. **We are becoming saturated with polluted air.**” (VIVO)

## 3. Communications Needs and Preferences

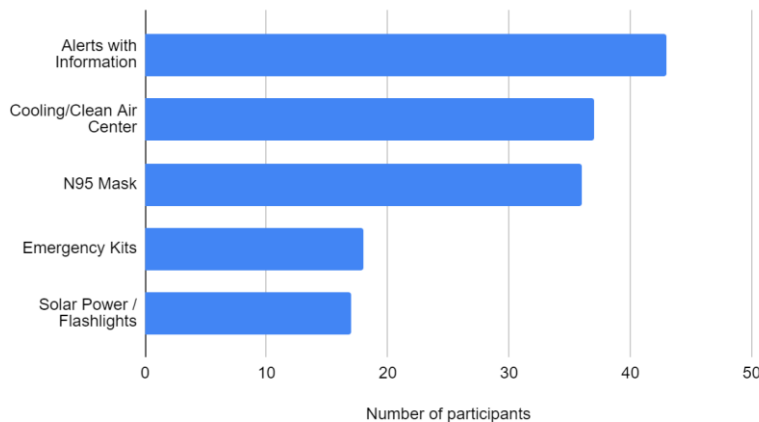
- “I am grateful that I was alerted about a cooling center because **I was able to pass this information over to my sister who needed to be at a cooling center.**” (LUNA)
- The **vast majority** of participants felt they **did not receive adequate information.**
  - “There is very little information or advice about what to do in an emergency, especially in our low-income community.” (CARAS)

Do you remember getting information about what to do when the air quality is bad or it is very hot?



## 4. Community Resiliency & Adaptive Capacity

What do you most need when a climate emergency happens?



- “Cooling centers need to be well-publicized, easy to get to, and accessible to all.” (ICAN)
- “More education for marginalized communities by going door to door and giving them supplies. Many people in these communities cannot afford their basic needs.” (VIVO)

## 4. Community Resiliency & Adaptive Capacity

- Ongoing training for community members and empowering community leaders
  - “importance of the community to be a part in preparations together as climate effects happen, and to create community leaders” (CARAS)
  - “Education allows the community to become active participants in climate resilience.” (LUNA)



LUNA Focus Group, June 22, 2022

## Conclusions/Recommendations

- Residents and CBOs are eager to be a part of these conversations.
- Specifically, these groups are craving ongoing engagement, training, and capacity building over one-off events and workshops.
- Residents want tangible, actionable programs and policies that can impact health – things like centralized alert systems, access to cooling centers and emergency preparedness supplies.
- Existing community spaces and groups can be leveraged to act “resilience hubs” to fulfill community needs in the near-term.

Questions?



VIVO Focus Group, June 6, 2022

## Discussion Questions

- How can we best continue engaging diverse communities in this work and continue our momentum?
- What potential projects do you have in mind to kick off this work?
- How can we approach communities as equal partners?

## GET IN TOUCH

### SEND ME AN EMAIL

[violet.saena@crc.acterra.org](mailto:violet.saena@crc.acterra.org)

### VISIT OUR WEBSITE

[CLIMATERCOMMUNITIES.ORG](http://CLIMATERCOMMUNITIES.ORG)

### SIGN UP FOR OUR NEWSLETTER

