Voices from Vulnerable Populations: Findings from the Alameda County Smoke Communications Project

June 2019

Developed for Alameda County, California, by Skeo
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EXECUTIVE SUMMARY

Purpose

This report summarizes the outcomes from the first phase of the Communicating Real-Time on Wildfire Smoke Project in its Alameda County, California project site. The project aims to gather and consider information from past wildfire smoke conditions and develop protocols for sharing information with the public in Alameda County, California, through county channels so that people can best protect themselves from smoke-related health risks. The purpose of this phase of the project was to explore and document the preferred methods of advisory communication for members of the public, and particularly people most vulnerable to smoke conditions and hard-to-reach populations, through a community engagement process.

Community Engagement Strategy

A community engagement strategy for reaching out directly to vulnerable and hard-to-reach populations and to the service providers who support them was developed based on input from several service providers and the Project Team. Community engagement is important for improving the communications protocol for wildfire smoke conditions because asking people for their feedback can help Alameda County:

- Create more effective solutions by drawing on local knowledge.
- Incorporate the values, concerns and aspirations of the community.
- Increase the likelihood that projects will be accepted and successful.
- Create opportunities to discuss citizen concerns and fears before they escalate.
- Increase trust in local government.

The community engagement strategy for this work primarily relied on:

- Focus groups and interviews with vulnerable populations.
- Focus groups and interviews with service providers.
- An online survey for service providers.

This strategy resulted in the direct engagement of 99 representatives from vulnerable populations and 173 service providers.

Communication Challenges Identified by Vulnerable Populations

During the 2018 fire season, focus group participants received information via:

- Social connections and word-of-mouth from work, schools, senior centers and athletic leagues.
- Television – especially NBC News. Additional considerations include:

Target populations

Populations prioritized for community engagement include:

- Older adults.
- Children under five (via parents/caregivers).
- Low-income communities.
- Communities of color.
- Monolingual non-English speakers and people with low proficiency or literacy in English.
- People with disabilities – including vision and hearing.
- People experiencing homelessness.
- Outdoor workers.
- People with respiratory or cardiovascular diseases.
- Undocumented people.
- City of San Leandro residents (the city is a project partner).
Spanish-language television and radio, which do not provide up-to-date or accurate smoke emergency information, are not trusted sources for emergency notifications.

- NBC News – though it is a trusted source of information during emergencies, its Facebook page posts are not translated into Spanish. Including Spanish postings in NBC News’ Facebook smoke condition updates would be helpful for Spanish-speaking communities.

Participants shared some technical challenges in the focus groups. They included:

- Because homeless people do not have permanent addresses, it can be difficult for them to get cell phones or internet access.
- Many of the most vulnerable populations lack access to television, the internet and radio as a regular means of communication (either for the reasons mentioned above, generational knowledge gaps or language barriers).
- Many of the vulnerable residents our consultants spoke to were non-English speakers and therefore not plugged into more mainstream word-of-mouth networks. They faced communication barriers receiving information from communication sources that share information primarily in English.

Focus group participants also shared some cultural challenges. They included:

- Stepped-up U.S. Immigration and Customs Enforcement (ICE) enforcement and police activity are causing Latino and homeless residents to be even more wary of interacting with government entities.
- Because of this, there is fear in both the Latino and homeless communities and therefore a heightened level of concern about the health and wellbeing of family and friends during smoke emergencies.
- Many focus group participants feel ignored by county government because they are low income, people of color and, in some cases, undocumented or homeless.

AC Alert is used by some of the focus group participants and it reaches some of the vulnerable populations. Focus group participants shared the following challenges related to AC Alert:

- Not all vulnerable populations are aware of AC Alert.
- Some people lack phone and internet access.
- AC Alert is not available in Spanish or other frequently spoken languages in Alameda County.
- There is ongoing concern about providing contact information to a government entity to sign up for AC Alert.

Summary of Observations and Recommendations identified by Service Providers

- The most reliable communication method in emergency situations is through a trusted community institution or community group. Service providers primarily receive information through email, text, AC Alerts and phone calls.
- Alameda County should proactively develop communication networks with primary community institutions and organizations.
Alameda County should provide information and resources to community institutions prior to the commencement of the fire season and emergency smoke conditions.

There is a critical need to rebuild trust between Alameda County and volunteer response organizations due to tensions and misunderstandings that developed during the last fire season – this trust is essential for effective communication.

**Recommendations**

**Key Findings for Future Smoke Emergency Information Communications**

Participants from vulnerable populations identified the following key findings, which were reinforced by feedback from service providers:

- The most reliable emergency communication methods are to work through trusted community institutions and groups.
- Alameda County should develop an emergency communication network using primary community institutions and organizations.
- There is a critical need to provide information about health and safety recommendations and distribution points for health and safety resources (e.g., masks, filters) prior to the start of the fire season.
- Service providers get smoke emergency information primarily through email, text and AC Alert.
- Service providers share information with their constituents and clients primarily through text, phone and AC Alert.
- Smoke emergency communications need to be in Spanish and other languages as appropriate to reach vulnerable populations.

Participants also identified additional recommendations, described in more detail in Section 5 of the report, regarding:

- Institutions and information sources trusted by vulnerable populations.
- Coordination with the school district.
- Recommended resources to help service providers get the word out.

**Key Findings for Future Smoke Emergency Information Communications**

If additional resources for community engagement are identified, Alameda County has the opportunity to build on the community engagement momentum developed during phase 1 of this project by:

- Providing future opportunities for more stakeholder engagement through focus groups and other outreach strategies and expanding the types of vulnerable populations engaged. (Section 5 of the report discusses ways to scale up focus groups efficiently.)
- Communicating back to the groups directly engaged how the Department of Public Health and other county agencies used the stakeholder input from vulnerable populations and service providers to refine the wildfire smoke communications protocol.
- Conducting follow up to evaluate the effectiveness of the wildfire smoke communications protocol developed for the 2019 fire season.
1. INTRODUCTION

Purpose

Alameda County, California, is experiencing unprecedented wildfire smoke conditions characterized by unhealthy air quality as a result of climate change. This trend is anticipated to continue in the future. The Communicating Real-Time on Wildfire Smoke Project applies a health-equity approach to respond to wildfire smoke impacts on the respiratory health of people who live and work in the county. Wildfire smoke conditions present health risks, particularly for vulnerable community members who are sensitive to the respiratory health effects of increased particulate matter in the air, or who may be unable to adequately protect themselves.

Alameda County and its grant partners received a grant from the Urban Sustainability Directors Network Innovation Fund for the Communicating Real-Time on Wildfire Smoke Project. Project partners at the county included the Alameda County Office of Emergency Services, Fire Department, Health Care Services Agency and Public Health Department, and the Office of Sustainability (referred to in this report as the “Project Team”). The project aims to gather and consider relevant information from past wildfire smoke conditions and develop protocols for sharing information with the public through county channels so that people can best protect themselves from health risks associated with smoke.

This report summarizes the outcomes of the first phase of the project. The purpose of this phase of the project was to explore and document the preferred method of advisory communication for members of the public, and particularly people most vulnerable to wildfire smoke exposure, through a community engagement process.

Process

In early 2019, the Alameda County Public Health Department released a request for proposals to identify a consultant to conduct the first phase of the project. Skeo, an environmental consulting firm with community engagement expertise working with marginalized communities, was chosen to lead the work, which included three primary steps:

1. Develop a community engagement strategy for reaching target populations.
2. Facilitate at least three focus groups with individuals from target populations and conduct other appropriate outreach, to gain knowledge about effective and preferred methods and avenues of advisory communication to members of the public, and particularly people most vulnerable to wildfire smoke exposure. Focus on how to best use existing county-wide channels of information while also collecting information on other communication avenues.
3. Summarize findings in a written report.

Target Populations

Given the task of communicating relevant information to members of the community, the Project Team was interested in targeting community members who may have difficulty accessing information or who may be more difficult to reach. For the purposes of the project, “target populations” include the groups listed below.
- Older adults.
- Children under five (via parents/caregivers).
- Low-income communities.
- Communities of color.
- Monolingual non-English speakers or people with low proficiency or literacy in English.
- People with disabilities – including vision and hearing impairment.
- People experiencing homelessness.
- Outdoor workers.
- People with respiratory or cardiovascular diseases.
- Undocumented people.
- City of San Leandro residents (the city is a project partner).

Within each group, care was taken to reach people who are most vulnerable (such as people who are low income, unhoused or from a racially disadvantaged group) and/or least able to access information (such as people facing language barriers). This list is intended to be refined and updated as additional vulnerable and hard-to-reach groups are identified during the process.

**How to Use This Report**

This section introduces the background and purpose of the Communicating Real-Time on Wildfire Smoke Project. The rest of the report is organized into the following sections:

**Section 2 – Community Engagement Strategy** captures the project’s community engagement strategy, which was based on the results of a data review and a series of initial interviews with service providers working with the target populations.

**Section 3 – Findings from Target Population Feedback** summarizes the feedback from focus groups held with target populations in May and June 2019.

**Section 4 – Findings from Service Provider Feedback** summarizes the feedback from a survey completed by 173 respondents from the service provider community in Alameda County.

**Section 5 – Recommendations** summarizes key themes from the findings and offers recommendations for effective communications during wildfire smoke conditions as well as for expanded community engagement in the future.
2. COMMUNITY ENGAGEMENT STRATEGY

At the request of Alameda County, Skeo reviewed wildfire smoke resources and conducted a limited set of interviews to inform development of a community engagement strategy for conducting focus groups with vulnerable populations as well as additional outreach and engagement.

The purpose of the focus groups and additional outreach was to explore how the county can better communicate health and safety information during wildfire smoke conditions, especially with vulnerable populations, including:

- Older adults.
- Children under five (via parents/caregivers).
- Low-income communities.
- Communities of color.
- Monolingual non-English speakers or people with low proficiency or literacy in English.
- People with disabilities – including vision and hearing.
- People experiencing homelessness.
- Outdoor workers.
- People with respiratory or cardiovascular diseases.
- Undocumented people.
- City of San Leandro residents (the city is a project partner).

Key Smoke Communications Resources Reviewed

Skeo reviewed the following resources to inform community engagement efforts about communications during wildfire smoke conditions:

<table>
<thead>
<tr>
<th>Resource</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alameda County Public Health Department. Protecting Your Health During Wildfire Season (flyer). Revised August 6, 2018.</td>
<td>Example of last year’s communications from Alameda County to the public.</td>
</tr>
<tr>
<td>Alameda County Sustainability Department. Alameda County Social Media Communications in Response to Camp Fire Smoke (presentation). November 2018.</td>
<td>Overview of effective and ineffective communications approaches in 2018.</td>
</tr>
</tbody>
</table>

Why is community engagement important?

- Creates more effective solutions by drawing on local knowledge.
- Incorporates the values, concerns and aspirations of the community.
- Increases the likelihood that projects will be accepted.
- Creates opportunities to discuss citizen concerns and fears before they escalate.
- Increases trust in local government.
## Resource

<table>
<thead>
<tr>
<th>Resource</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liu, Jia Coco, et al. “Future respiratory hospital admissions from wildfire smoke under climate change in the Western US.” <em>Environmental Research Letters</em>. December 8, 2016.</td>
<td>Study concludes that hospitalizations due to wildfire smoke conditions will rise due to climate change.</td>
</tr>
</tbody>
</table>

## Informational Interviews

Skeo reached out to a broad range of service providers to conduct interviews to inform the development of the focus groups and additional outreach. The interviews, initially intended to be completed before the focus groups started, took place on a rolling basis because of limited response from the service providers.

Skeo conducted four interviews with service providers:

- David Modersbach, Alameda County Health Care for the Homeless (4/25/19).
- Gabriela Galicia, Executive Director of the Oakland Worker’s Collective (6/7/19).
- Marguerite Young, Director of Climate and Environmental Justice at Service Employees International Union (6/17/19).
### Populations Served by these Organizations

<table>
<thead>
<tr>
<th>Populations</th>
<th>Alameda County Health Care for the Homeless</th>
<th>Eden United Church of Christ</th>
<th>Oakland Worker’s Collective</th>
<th>Service Employees International Union</th>
</tr>
</thead>
<tbody>
<tr>
<td>Families with children under five</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Older adults</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>People who are unhoused</td>
<td>Yes</td>
<td>No – but we have a partnership with the church that has the largest warming shelter, the First Presbyterian Church of Hayward.</td>
<td>Yes</td>
<td>Less so</td>
</tr>
<tr>
<td>Outdoor workers, day laborers</td>
<td>We have services directed towards them at a few sites.</td>
<td>Yes – many husbands of women in Padres Unidos de Cherryland.</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>People with asthma</td>
<td>An estimated 15-20 percent of the population we serve has asthma; the estimate is probably higher if other respiratory issues are included.</td>
<td>Think we have a large population in the area; we have a partnership with the local clinics.</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Low-income communities</td>
<td>All low income.</td>
<td>Yes – Padres Unidos de Cherryland, food pantry.</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Communities of color</td>
<td>Estimate 70 percent people of color.</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Other people vulnerable to the health effects of wildfire smoke</td>
<td>People with heart conditions, bronchitis, COPD, increasingly aging population entering homelessness.</td>
<td>Unaccompanied minors.</td>
<td>Workers that go up north to do rebuilding work where the fires have happened (most live in Oakland).</td>
<td>Disabled people (including severely physically and developmentally disabled) and linguistically isolated people.</td>
</tr>
<tr>
<td>Geographic reach</td>
<td>North County and South County.</td>
<td>Sunday morning membership is from across the county. Weekday focus is on nearby neighbors in Hayward and Cherryland.</td>
<td>North County and South County.</td>
<td>North County and South County.</td>
</tr>
</tbody>
</table>
Key Themes from Interviews

Key themes from the interviews include:

- **Points of service can be important distribution nodes for vulnerable populations who are connected to services.** Developing a comprehensive list of formal and informal points of service could be beneficial for increasing effective communications during a wildfire smoke event.

- **There are many reasons vulnerable populations may choose not to interact regularly with points of service.** For example, people who are part of the undocumented community may not wish to draw attention to their friends and neighbors. People who are chronically unhoused and wish to be more disconnected from society may withdraw to homeless encampments and choose to limit their interaction with service providers. Unaccompanied minors may wish to remain under the radar. People whose primary language is not English may have limited access to services that are provided primarily in English.

- **Building relationships with trusted networks will be key to effective communication with hard-to-reach populations.** Providers reach vulnerable and hard-to-reach populations through trusted “gatekeepers” (e.g., an informal network of volunteers who have relationships with people living in homeless encampments, a group of Latina mothers who meet regularly at a local elementary school to discuss community issues and who are trusted sources of information in the broader community).

- **Rebuilding trust between “volunteer responders” and Alameda County is also essential.** Volunteer networks can be effective at using social media and word-of-mouth to distribute information and can get resources to hard-to-reach populations more quickly. Some volunteer responder networks were left with mixed feelings and loss of trust after mask distribution miscommunications and lack of coordination with the official county response network during the 2018 fire season. Re-establishing trust between these groups and the county is essential to ensuring that they have access to the most up-to-date public health and safety information and resources and that they trust the information provided by the county. This will enable better coordination with groups working with vulnerable and hard-to-reach populations during future wildfire smoke conditions.

- **Equity supports are valuable for building trust and increasing participation in the focus groups.** Supports that resonated with interviewees included cash stipends, refreshments, language interpretation and translation services, and childcare.

Community Engagement Strategy

Based on the feedback from the interviews, Skeo recommended several options for community engagement. These options were prioritized to fit the resources and timeframe available for community engagement, so not all options were implemented during this phase of the project. The chart on the following page summarizes the community engagement strategy options and their status during this phase of the project. It also lists the equity supports provided to enable the participation of vulnerable and hard-to-reach populations. The Recommendations section provides information on potential ways to proceed with additional community engagement efforts in the future.
<table>
<thead>
<tr>
<th>Recommendations</th>
<th>Status</th>
<th>Equity Supports</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Focus Groups</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Padres Unidos de Cherryland (Latina mothers who can speak to families with</td>
<td>May 28, 2019</td>
<td>• Breakfast</td>
</tr>
<tr>
<td>children under five, experiences of people with respiratory issues, outdoor</td>
<td>13 participants</td>
<td>• Stipends</td>
</tr>
<tr>
<td>workers)</td>
<td></td>
<td>• Spanish language translation by a trusted community facilitator</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Childcare</td>
</tr>
<tr>
<td>San Leandro Senior Center (geography based; open to all seniors, to capture</td>
<td>May 28, 2019</td>
<td>• Refreshments</td>
</tr>
<tr>
<td>seniors’ perspectives)</td>
<td>1 participant</td>
<td>• Raffle prizes</td>
</tr>
<tr>
<td>Service providers and volunteer responders connected to encampments of unhoused</td>
<td>May 31, 2019</td>
<td>• Lunch</td>
</tr>
<tr>
<td>people (can speak to how to get information/resources to unhoused people with</td>
<td>6 participants</td>
<td>• Stipends (for volunteer responders only)</td>
</tr>
<tr>
<td>the least connections to formal services)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trust Clinic clients (people who are unhoused and use clinic services)</td>
<td>May 31, 2019</td>
<td>• Refreshments</td>
</tr>
<tr>
<td></td>
<td>11 participants</td>
<td>• Stipends</td>
</tr>
<tr>
<td>Oakland Workers Collective (day laborers who meet weekly to discuss worker health</td>
<td>June 11, 2019</td>
<td></td>
</tr>
<tr>
<td>and safety)</td>
<td>21 participants</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Survey</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Twelve-question survey to service providers (used to collect contact information as well)</td>
<td>Open May 22 – June 12, 2019</td>
<td>n/a</td>
</tr>
<tr>
<td></td>
<td>173 participants</td>
<td></td>
</tr>
<tr>
<td><strong>Engagement at Community Events</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Day laborers: have a Spanish-speaking person connected to the community do short</td>
<td>Week of June 10, 2019</td>
<td>• Translation</td>
</tr>
<tr>
<td>interviews at pickup spots</td>
<td>53 participants</td>
<td></td>
</tr>
<tr>
<td>Health Care for the Homeless: health van clients, clients at safe parking locations</td>
<td>Not implemented during this phase of the project.</td>
<td>• Stipends</td>
</tr>
<tr>
<td>Eden UCC food pantry: great window into the low-income resident community; second and fourth Wednesdays of the month</td>
<td>Not implemented during this phase of the project.</td>
<td>• Stipends</td>
</tr>
<tr>
<td>Eden UCC book clubs: hosted for the elderly, majority are English speakers</td>
<td>Not implemented during this phase of the project.</td>
<td>• Refreshments • Stipends if requested</td>
</tr>
</tbody>
</table>
### 3. Findings from Target Population Feedback

The community engagement strategy outreach resulted in conversations with 99 representatives from vulnerable populations through three focus groups, one interview and outreach at two day labor pickup sites, as summarized in the chart below.

<table>
<thead>
<tr>
<th>Outreach to ...</th>
<th>Date</th>
<th>Number of Participants</th>
<th>Facilitated by</th>
<th>Equity Supports Provided</th>
</tr>
</thead>
</table>
| Padres Unidos de Cherryland (Latina mothers who can speak to families with children under five, experiences of people with respiratory issues, outdoor workers) | May 28, 2019 | 13 | Skeo, with Spanish language interpretation provided by Eden United Church of Christ | • Breakfast  
• Stipends  
• Spanish interpretation by a trusted local facilitator  
• Childcare |
| San Leandro Senior Center (geographic based; open to all seniors, to capture seniors’ perspectives) | May 28, 2019 | 1 | Skeo | • Refreshments  
• Raffle prizes |
| Trust Clinic clients (people who are unhoused and use clinic services) | May 31, 2019 | 11 | Skeo | • Refreshments  
• Stipends |
| Oakland Workers Collective (day laborers who meet weekly to discuss worker health and safety) | June 11, 2019 | 21 | Oakland Workers Collective, with questions provided by Skeo | • Refreshments  
• Stipends  
• Spanish language facilitation by trusted local facilitators |
| Day laborers: have a Spanish-speaking person connected to the community do short interviews at pickup spots | Week of June 10, 2019 | 53 | Oakland Workers Collective, with questions provided by Skeo | • Spanish language interviews |
Key Themes and Feedback from Each Group

Padres Unidos de Cherryland

A robust conversation took place with a dynamic group of Latina mothers of children who attend Cherryland Elementary School in unincorporated Hayward. These mothers speak to the needs of families with children under five, people with respiratory issues and outdoor workers. This group shared the following feedback in response to the questions asked about their concerns and methods of receiving information about smoke emergencies.

- Spanish-language communications are essential for most of their community.
- Many have family members with COPD and asthma, and are very concerned about their health (especially working outside and walking to school).
- The group strongly emphasized that the Alameda County Fire Department and other county communications need to provide a consistent message directly to the schools.
- They get their news from television, radio and social networks.

### Main Messages

1. If you want to reach their community effectively, you need to be communicating in Spanish.
2. Many of their family members and friends already have respiratory conditions, so they are especially concerned about the impact of exposure to smoke.
3. The fire department and other county departments need to be in better communication and deliver a consistent, unified message about what to do during smoke emergencies. The fire department is seen as a trusted entity for accurate information about health and safety during wildfire smoke conditions.
4. Their community gets their news and information primarily from television, radio and social networks.
5. The mothers often feel overlooked by county government, and their perception is that they are overlooked because their community is poor and Latino. The mothers were appreciative that they were asked for their perspectives on smoke emergencies on behalf of the Department of Public Health.

*Padres Unidos de Cherryland focus group*
Trust Clinic Clients in Oakland

Eleven people who are unhoused and use clinic services at the Trust Clinic in downtown Oakland participated in a focus group. These participants shared that:

- People who are homeless are often distrustful of police and government workers; they primarily trust known service providers to get information.
- People who are homeless do not have reliable access to phones, television, radio or Internet, so word of mouth is an important method of communication for this group.
- Many of them already have chronic respiratory conditions.

Oakland Workers Collective

Twenty-one day laborers from the Oakland Workers Collective participated in a self-facilitated discussion (their regular trainers led a discussion using the project’s agenda and questionnaire). The day laborers said the following things:

- Most of them were exposed to wildfire smoke conditions while working outside, or while waiting outside to obtain day laborer jobs.
- Not all of them received emergency smoke conditions information.
- The best way to reach them with smoke emergency information is through friends and neighbors, television, Facebook, and emergency alerts.
- The most trusted sources of information for communicating with them are television, Facebook, radio and word of mouth.
- They also recommended mandating that all employers provide information to their workers about wildfire smoke conditions and provide breathing masks. The latter recommendation may indicate that additional education is needed for day laborers and employers about when to provide masks and who needs them, as well as other strategies for protecting workers’ health.
- They suggested that Alameda County establish an emergency phone tree to alert all residents of smoke emergency conditions.

Interview with representative from Senior Community

While only one senior attended the discussion at the San Leandro Senior Center, she had spoken with other friends, neighbors and relatives to prepare for the discussion. She reviewed the information provided beforehand and came with a long list of questions. She shared that many seniors do not text (even if they have a cell phone) or the Internet, so these are not the best methods to communicate emergency smoke information to seniors. Many of the seniors she interacts with get trusted information through the senior centers or by word-of-mouth through friends and family.
Discussions at Day Laborer Pickup Sites

The Oakland Workers Collective led brief discussions with workers at day laborer pickup sites using a short set of questions. These conversations were a truncated version of the focus group questions, due to the short timeframes available to engage day laborers while they wait for work. The questions included:

1. How did you get information about how to protect yourself from smoke during the last wildfire season? What worked well and what could have worked better?
2. What communication methods work best for reaching you and your neighbors with time-critical information and resources?
   - Phone call
   - Email
   - Text
   - Facebook
   - Twitter
   - Nextdoor
   - Television
   - Radio
   - Press releases or other formal government communications

3. What information sources do you trust the most to give you information about smoke and wildfire emergencies? (please gather specific feedback like specific radio or tv stations, newsletters, trusted local providers, etc.)

The chart below provides a summary of participant responses.

<table>
<thead>
<tr>
<th>Fruitvale/Foothill Site (32 day laborers reached)</th>
<th>High/International Site (21 day laborers reached)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>How did you get information about how to protect yourself from smoke during the last wildfire season? What worked well and what could have worked better?</strong></td>
<td>The majority of workers were new to Oakland and did not experience the wildfire season or the youth that wait for work were not around then.</td>
</tr>
<tr>
<td>• Word of mouth by friends</td>
<td>• Word of mouth by friends</td>
</tr>
<tr>
<td>• Outreach from Street Level Health Project (SLHP) and Mam interpreter (Francisco)</td>
<td>• Outreach from Street Level Health Project (SLHP) and Mam interpreter (Francisco)</td>
</tr>
<tr>
<td>• News (Telemundo/Univision)</td>
<td>• News (Telemundo/Univision)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>What communication methods work best for reaching you and your neighbors with time-critical information and resources?</strong></th>
<th><strong>What information sources do you trust the most to give you information about smoke and wildfire emergencies?</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Television: 25</td>
<td>• No responses</td>
</tr>
<tr>
<td>• Word of Mouth: 5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• News (Univision/Telemundo)</td>
</tr>
<tr>
<td></td>
<td>• SLHP outreach</td>
</tr>
</tbody>
</table>
Summary of Communication Findings

Sources of Information during the 2018 Fire Season

- Social connections and word-of-mouth from work, schools, senior centers and athletic leagues.
- Television – especially NBC News – and Facebook.
- Spanish-language television and radio do not provide up-to-date or accurate smoke emergency information and are not trusted sources for emergency notifications.
- Though NBC News is a trusted source of information during emergencies, its Facebook posts are not translated into Spanish. This would be useful for Spanish-speaking communities.

Barriers to Use of AC Alert by Vulnerable Populations

- Not all vulnerable populations are aware of AC Alert.
- Some vulnerable populations lack phone and Internet access.
- AC Alert is not available in Spanish or other frequently spoken languages in Alameda County.
- There is concern about providing contact information to a government entity to sign up for it.

Technical Challenges

- Because homeless people do not have permanent addresses, it can be difficult for them to get cell phones or Internet access.
- Many of the most vulnerable populations lack access to television, the Internet and radio as a regular means of communication (either for the reasons mentioned above, generational knowledge gaps or language barriers).
- Many of the vulnerable residents interviewed were non-English speakers and therefore not plugged into more mainstream word-of-mouth networks and faced communication barriers receiving information from sources that communicate primarily in English.

Cultural Challenges

- Stepped-up ICE enforcement and police activity are causing Latino and homeless residents to be even more wary of interacting with government entities.
- Because of this, there is fear in both the Latino and homeless communities and therefore a heightened level of concern about the health and wellbeing of family and friends during smoke emergencies.
- Many focus group participants feel ignored by county government because they are low income, people of color and, in some cases, undocumented or homeless.

"For so many of the vulnerable, [wildfire smoke] is another stress layered on so many other stressors."

- Padres Unidos de Cherryland

"80 percent of our community won’t know unless it’s in Spanish."

- Padres Unidos de Cherryland
4. FINDINGS FROM SERVICE PROVIDER FEEDBACK

Based on the initial information-gathering interviews, the Project Team developed a Wildfire Smoke Communications Survey for service providers. In addition, Skeo conducted a focus group with service providers and volunteer responders connected to encampments of unhoused people. The findings from each method of outreach are summarized below.

Providers for Homeless Encampments Focus Group

The service providers and volunteer responders who attended this focus group spoke to how to get information/resources to unhoused people with the least connections to formal services. These providers reinforced the recommendations provided by the vulnerable-population focus-group participants.

Key themes and recommendations from this focus group include:

- The most reliable communication method in emergency situations is through a trusted community institution or community group. Service providers primarily receive information through email, text, AC Alerts and phone calls.
- Alameda County should proactively develop communication networks with primary community institutions and organizations.
- Alameda County should provide information and resources to community institutions prior to the commencement of the fire season and emergency smoke conditions.
- There is a critical need to rebuild trust between Alameda County and volunteer response organizations due to tensions, misunderstandings that developed during the last fire season – this trust is essential for effective communication, especially with the unhoused community.

Key Findings from the Service Provider Survey

A 12-question survey was distributed via email to over 1,000 county social service agencies, schools and external service providers. Survey Monkey was used to gather responses online. A total of 173 service providers responded to the survey, including representation from the following groups of providers:

- Local government 73%
- Non-profit organization 12%
- Other (please specify) 8%
- Healthcare organization 5%
- Community-based and/or activist group 4%
- School system 3%

The full set of survey results has been provided to Alameda County Department of Public Health in an Excel spreadsheet. Key findings are summarized below.
**Key Service Provider Survey Findings**

**What communication methods work best for reaching you/your organization with time-critical information and resources during extreme wildfire smoke conditions?**

<table>
<thead>
<tr>
<th>Response</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email</td>
<td>77%</td>
</tr>
<tr>
<td>Text</td>
<td>67%</td>
</tr>
<tr>
<td>County emergency alerts</td>
<td>57%</td>
</tr>
<tr>
<td>Phone call</td>
<td>53%</td>
</tr>
<tr>
<td>Local government website</td>
<td>26%</td>
</tr>
<tr>
<td>Press releases or other formal government communications</td>
<td>24%</td>
</tr>
<tr>
<td>Facebook</td>
<td>9%</td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>4%</td>
</tr>
<tr>
<td>Twitter</td>
<td>4%</td>
</tr>
<tr>
<td>Nextdoor</td>
<td>4%</td>
</tr>
</tbody>
</table>

Other responses included:
- Word of mouth.
- KCBS radio announcements.
- Sirens / drive around with loudspeaker.
- Door-to-door, in-person notification.
- AC Alert.
- City of Berkeley alerts.
What communication methods work best for you/your organization to get that information to the populations you serve during extreme wildfire smoke conditions?

<table>
<thead>
<tr>
<th>Response</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Text</td>
<td>58%</td>
</tr>
<tr>
<td>Phone call / phone tree</td>
<td>54%</td>
</tr>
<tr>
<td>County emergency alerts</td>
<td>53%</td>
</tr>
<tr>
<td>Printable communications (e.g., flyers / posters / postcards)</td>
<td>44%</td>
</tr>
<tr>
<td>Email</td>
<td>44%</td>
</tr>
<tr>
<td>Personal word of mouth</td>
<td>43%</td>
</tr>
<tr>
<td>Sharing through other local providers</td>
<td>36%</td>
</tr>
<tr>
<td>Press releases or other formal government communications</td>
<td>34%</td>
</tr>
<tr>
<td>Local government website</td>
<td>31%</td>
</tr>
<tr>
<td>Facebook</td>
<td>26%</td>
</tr>
<tr>
<td>Twitter</td>
<td>12%</td>
</tr>
<tr>
<td>Nextdoor</td>
<td>7%</td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>6%</td>
</tr>
</tbody>
</table>

Other responses:
- Instagram, Snapchat, other social media platforms.
- Spanish-radio and Spanish-television announcements.
- Text is more widely used than phone by many clients, who screen phone calls.
- Our organization would rely on county emergency alerts not generated through our office.
- Press releases via newspapers, especially for older populations.
- Local news.
- We also post information on our agency’s website. And, of course, the primary method of disseminating disaster-related information is via 211, the 24/7 multilingual phone line operated by Eden I&R.
- Text link to video message (maybe).
### What resources/materials could help you conduct these communications quickly and effectively?

<table>
<thead>
<tr>
<th>Response</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample language for text and/or social media communications</td>
<td>45%</td>
</tr>
<tr>
<td>Electronic versions of printable communications (e.g., flyers, posters, postcards)</td>
<td>26%</td>
</tr>
<tr>
<td>Talking points for phone or word-of-mouth communications</td>
<td>13%</td>
</tr>
<tr>
<td>Weblinks to press releases or other formal government communications</td>
<td>11%</td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>5%</td>
</tr>
</tbody>
</table>

Other responses:
- Newspaper.
- All four of the above options would be helpful for Eden I&R/211.
- Check out the Bay Area Regional Air Quality Messaging Toolkit - it's a draft and as of May 29, 2019 it includes all the above materials
- We serve children, so notifying the schools would be a good way
- Translation
In what languages (other than English) would it be helpful to provide these communications?

<table>
<thead>
<tr>
<th>Response</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spanish</td>
<td>90%</td>
</tr>
<tr>
<td>Vietnamese</td>
<td>56%</td>
</tr>
<tr>
<td>Traditional Chinese</td>
<td>55%</td>
</tr>
<tr>
<td>Simplified Chinese</td>
<td>53%</td>
</tr>
<tr>
<td>Farsi</td>
<td>52%</td>
</tr>
<tr>
<td>Tagalog</td>
<td>45%</td>
</tr>
<tr>
<td>Arabic</td>
<td>42%</td>
</tr>
<tr>
<td>Korean</td>
<td>31%</td>
</tr>
<tr>
<td>Hindi</td>
<td>30%</td>
</tr>
<tr>
<td>Japanese</td>
<td>21%</td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>18%</td>
</tr>
<tr>
<td>Persian</td>
<td>16%</td>
</tr>
<tr>
<td>Portuguese</td>
<td>16%</td>
</tr>
<tr>
<td>French</td>
<td>15%</td>
</tr>
</tbody>
</table>

Other responses:
- American Sign Language
- Amharic
- Burmese
- Cambodian
- Cantonese
- Danish
- Dari
- East African dialects
- Eritrian
- Ethiopian
- Farsi
- German
- Hebrew
- Italian
- Khmer
- K’iche
- Lao
- Latin American languages or dialects besides
- Spanish
- Mam
- Mandarin
- Mongolian
- Nepalese
- Norwegian
- Other African, Asian and Indian languages
- Pashto
- Punjabi
- Russian
- Spanish
- Swahili
- Swedish
- Thai
- Tigrini
- Turkish
- Urdu
### Additional Service Provider Survey Findings

**Which of the following populations do you serve?**

<table>
<thead>
<tr>
<th>Response</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low-income communities</td>
<td>79%</td>
</tr>
<tr>
<td>Families with children under five</td>
<td>72%</td>
</tr>
<tr>
<td>Communities of color</td>
<td>70%</td>
</tr>
<tr>
<td>Older adults (65 years and older)</td>
<td>60%</td>
</tr>
<tr>
<td>People who are unhoused</td>
<td>57%</td>
</tr>
<tr>
<td>People with asthma or other respiratory issues</td>
<td>47%</td>
</tr>
<tr>
<td>Unaccompanied minors</td>
<td>42%</td>
</tr>
<tr>
<td>Outdoor workers / day laborers</td>
<td>29%</td>
</tr>
<tr>
<td>Other populations who may be vulnerable to wildfire smoke (please specify)</td>
<td>21%</td>
</tr>
</tbody>
</table>

Other responses:

- Pregnant and postpartum women.
- Children.
- Children and youth with physical disabilities and special healthcare needs.
- Families with school-age children.
- Schools.
- Adults and youth seeking employment and training.
- Foster youth and non-minor dependents.
- Adults, children and youth with autism and/or intellectual or developmental disabilities.
- Dependent adults ages 18 to 65.
- Adults 55+.
- People with serious mental illness.
- Adults with serious and chronic medical conditions.
- HIV/AIDS and Hepatitis C.
- Persons with dementia and other impairments.
- Deaf, blind and special-needs persons.
- People who rely on public transportation.
- All vulnerable people who suffer from undue influence.
- People who are displaced due to fire.
Does your organization have relationships with informal networks or community groups that you do (or could) use for communications? If yes, please share a little more about the groups you are connected to and how to best coordinate with/support them to get the word out effectively during extreme wildfire smoke conditions.

<table>
<thead>
<tr>
<th>Response</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>55%</td>
</tr>
<tr>
<td>No</td>
<td>45%</td>
</tr>
<tr>
<td>Other</td>
<td>39%</td>
</tr>
</tbody>
</table>

Respondents to this question provided a wealth of responses regarding the networks they could make available to get information out to vulnerable populations. Recommendations included non-profits, community-based organizations, medical providers, service providers, racial and ethnic affinity groups, community gathering places, social media sites, and government agencies. The Excel spreadsheet provides the full list of responses.

What special needs may the population you/your organization serve(s) have for staying safe and healthy during extreme wildfire smoke conditions?

<table>
<thead>
<tr>
<th>Response</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Answered</td>
<td>73%</td>
</tr>
<tr>
<td>Skipped</td>
<td>27%</td>
</tr>
</tbody>
</table>

Respondents to this question provided a wealth of responses regarding the special needs of vulnerable populations. Feedback included health concerns, access to medical equipment, language barriers (including for people who are deaf), access to transportation, access to basic essentials and emergency supplies, access to food and water, access to shelter, and access to personal and home filtration devices. The Excel spreadsheet provides the full list of responses.

Is there any additional feedback you would like to share about best practices for effective communications during extreme wildfire smoke conditions?

<table>
<thead>
<tr>
<th>Response</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Answered</td>
<td>29%</td>
</tr>
<tr>
<td>Skipped</td>
<td>71%</td>
</tr>
</tbody>
</table>

Respondents to this question provided a wealth of responses regarding the best practices for effective communications. Suggestions included specific methods and timing of communications. The Excel spreadsheet provides the full list of responses.
5. RECOMMENDATIONS

Members of vulnerable populations and service providers provided recommendations about how to improve future wildfire smoke event communications. The Project Team also developed a set of recommendations about ways to expand future community engagement efforts to gather additional insight about communications from a broader group of vulnerable populations. These recommendations are summarized below.

Communication Recommendations Identified by Participants

Key Findings for Future Smoke Emergency Information Communications Identified by Vulnerable Populations

- The most reliable emergency communication methods are through trusted community institutions and groups.
- Alameda County should develop an emergency communication network using primary community institutions and organizations.
- There is a critical need to provide information about health and safety recommendations and distribution points for health and safety resources (e.g., masks, filters) prior to the start of the fire season.
- Service providers get smoke emergency information primarily through email, text and AC Alert.
- Service providers share information with their constituents and clients primarily through text, phone and AC Alert.
- Smoke emergency communications need to be in Spanish and other languages as appropriate to reach vulnerable populations.

Institutions and Information Sources Trusted by Vulnerable Populations:

For future smoke emergency communications, participants from vulnerable populations recommended that the County utilize trusted institutions or organizations, including:

- Schools (especially parent coordinators).
- Health clinics, senior centers and homeless service providers.
- Alameda County Fire Department.
- The faith community.
- Community organizations and volunteer responder networks.

“Be part of our community; we need someone who is part of our community to be our point of contact.”

- Padres Unidos de Cherryland

Information Sources:

Participants from vulnerable populations also recommend use of trusted information sources such as:

- Facebook and Twitter posts (Spanish language posts would be especially helpful).
- Agency and organizational websites.
- Flyers posted throughout their communities.
- Trainings in coordination with the fire department.
Educational postcard mailings before the start of fire season.

School District Coordination

The Padres Unidos de Cherryland group had several concerns about the need for better school district coordination, including:

- The need for direct communication between the county and school districts about wildfire smoke conditions and how people should respond to them.
- All focus group participants did not receive emergency information about emergency smoke conditions through their children’s schools.
- Some mothers felt their schools were reluctant to tell parents to keep their children at home because the schools need a certain number of classroom days in order to receive funding.
- Mothers emphasized that the county’s Public Health Department and school system should prioritize the health and well-being of children during emergency smoke conditions before any other cost considerations.

“Please first worry about the health of children before funding for everything else.”
- Padres Unidos de Cherryland

Service Provider Focus Group Recommendations

Service providers reinforced several of the recommendations from vulnerable population focus group participants, including:

- The most trusted emergency communication method is through a trusted community institution or group.
- Providers receive information primarily through email, text, AC Alerts and phone calls, so these are key communication methods for ensuring information will ultimately reach vulnerable populations.
- Alameda County should proactively develop communications networks with primary community institutions and organizations.
- There is a need to better prepare and both provide information and distribute resources ahead of the start of the fire season.
- There is a need to rebuild and repair some frayed relationships between the county and volunteer response organizations to create a truly effective communication network that better reaches vulnerable populations.

“My son walks an hour to school – the nurse sent him home because he was having too much trouble breathing to learn.”
- Padres Unidos de Cherryland

Recommended Resources to Help Service Providers Get the Word Out

Service providers felt that having resources provided by Alameda County could help them get the word out about wildfire smoke conditions to their clients effectively. These resources include:

- Sample language that can be used in texts and social media posts.
- Electronic versions of materials that can be printed in house by service providers.
- Talking points to guide word-of-mouth communications.
Presentation slides that could be run on a loop on building displays for clients.

- Forwarding AC Alerts and other alerts received from public agencies directly to clients.
- Making the Bay Area Regional Air Quality Messaging Toolkit broadly available to service providers.
- Providing the above materials in several languages.

Recommendations for Further Community Engagement

The community engagement strategy in the first phase of the Communicating Real-Time on Wildfire Smoke Project reached 99 representatives of vulnerable populations and 173 service providers. Each of the vulnerable populations (Padres Unidos de Cherryland, Trust Clinic homeless clients, the senior representative, day laborers) expressed appreciation that Alameda County sought their opinions and perspectives. Their insights were invaluable in understanding how these communities receive and communicate information. However, these groups represent only some of the vulnerable and hard-to-reach populations in Alameda County. If more resources become available, additional outreach and information gathering could reach many more vulnerable and hard-to-reach populations.

If additional resources are identified, Alameda County has the opportunity to build on the project’s community engagement momentum by:

1. Providing future opportunities for more stakeholder engagement through focus groups and other outreach strategies and expanding the range of vulnerable populations engaged (see the discussion below about how to scale up focus groups efficiently),
2. Communicating with the groups directly engaged to date about how the county’s Department of Public Health and other county agencies used stakeholder input from vulnerable populations and service providers to refine the wildfire smoke communications protocol.
3. Conducting follow up to evaluate the effectiveness of the wildfire smoke communications protocol developed for the 2019 fire season.

Recommendations for Scaling Up Stakeholder Engagement through Self-facilitated Focus Groups

The self-facilitated focus group approach tested by the day laborers with the support of the Oakland Workers Collective worked well. It could serve as a model for scaling up stakeholder engagement to reach many more vulnerable groups. Benefits of this approach include:

- Regularly scheduled meetings of affinity groups from vulnerable populations provide a natural setting for focus group discussions – attendees know and trust each other already and are usually part of the same community, so they can engage in deeper conversations that provide insight about their particular group.
- The approach requires fewer resources for outreach than setting up and advertising a new focus group. Resources can focus on coordination with the group’s leadership, while little to no outreach is needed for participants because discussions take place during regularly scheduled meetings.
- These groups already have a leadership structure and can self-facilitate through a series of discussion questions.
- Groups with bilingual facilitators may also be able to translate discussion notes back into English.
To facilitate scaling up in this way, the Department of Public Health or Alameda County as a whole could identify funding resources for the following activities:

- Develop a facilitator’s guide (a printable handout) that includes talking points about the purpose of the focus group, a series of discussion questions and a standard format for capturing the discussion. Considerations include:
  - Development of this guide could help standardize the structure of focus group discussions and make it easy for facilitators and notetakers to jump into the community outreach process with minimal training.
  - The guide could be translated into several languages to ensure the process reaches monolingual non-English and non-Spanish speakers more effectively.
- Conduct outreach to a broader range of affinity groups from vulnerable populations, including those hosted by community leaders and those hosted by service providers, to explain the project and ask for them to host, self-facilitate and provide notetaking during a one-to-two-hour focus group discussion.
- Provide equity supports, including stipends for facilitators and participants.
- Review the notes provided by all focus groups and develop a report that captures the themes across the groups and summarizes insights about how to reach specific vulnerable populations from within each group.
- Begin development of the emergency communication network using primary community institutions and organizations (recommended by focus group participants during the first phase of the project).