

Reaching Smoke-Vulnerable Communities With Real-Time Health Alerts

Overview: Alameda County's new Air Quality Communications Protocol establishes clear roles and messages to ensure internal coordination and prompt action during unprecedented regional wildfire smoke conditions.

Challenge: In recent years, California has experienced the deadliest and most destructive wildfires in its history. Fueled by dry vegetation and extreme winds, these massive wildfires destroyed thousands of homes and exposed millions to unhealthy air. Existing communication channels were not reaching members of the community who are most at-risk, such as older adults and outdoor workers, with information about how to protect their health. A plan was needed to coordinate clear messaging in advance of an air quality event. We faced three related challenges: reaching those most vulnerable to air pollution with vital health messages; improving coordination among county agencies engaged in wildfire and air quality response; and having an action plan in place for the next wildfire season, only months away.

Solution: Alameda County's Office of Sustainability obtained grant funding to facilitate a cross-agency process to catalyze coordination and develop an Air Quality Communications Protocol. The County Office of Emergency Services, Fire Department, Public Health Department, and Office of Sustainability formed a project team that conducted community focus groups and held an interactive workshop in June 2019 to collect input from internal and external stakeholders with experience with this topic. Building on interest generated in the workshop, an internal working group developed a communications protocol organized by Air Quality Index (AQI) level. For each AQI level, the protocol lays out actions and pre-approved template messages in plain language. It provides guidance for county agencies to communicate with their staff and client base and directs when to conduct outreach to impacted populations such as unhoused residents.

Innovation: A major innovation of this work was the inclusion of input from the County's most vulnerable and hard-to-reach populations through the use of focus groups. If the county's messages could reach frontline communities most at risk, including communities of color, this improvement would benefit all residents. The final protocol and messaging were designed with a user-centered approach in mind. Focus groups were coordinated with community organizations to reach those most affected by smoke including a senior center, a community church, a clinic serving unhoused residents, and a day workers' center. Then, a [half-day workshop](#) convened 40 diverse stakeholders from seven county departments, as well as regional

and non-profit partners. Workshop facilitation methods drawn from human-centered design were employed to encourage sharing expertise related to air quality communication. Project leaders briefed stakeholders on key insights from the community focus groups and lessons learned from previous wildfires. In a tabletop exercise, small groups imagined how a model air quality communications protocol borrowed from San Francisco could be tailored to Alameda County under different scenarios. The stakeholder and focus groups provided critical feedback to make the protocol effective when it was finalized by a cross-agency team.

Results: The effort has made our county more resilient. The [protocol](#) was first used for response to October 2019 fires. In August 2020, it has proved particularly valuable when staff capacity is limited. The County has been able to act swiftly and with multi-agency coordination, sending out pre-drafted messages based on AQI threshold values to alert residents on what protective actions should be taken. Further, the County has adapted how we delivered public health messages to the community to expand reach. From the [focus groups](#), project partners learned that community members place higher trust in information provided from local organizations than from the County. We are now sharing information for distribution with groups such as health care providers and faith-based organizations. Going forward, an online [subscription](#) in the County alert system allows community organizations including schools and community centers to receive air quality information to share with members. Finally, the protocol project strengthened key inter-agency relationships and community connections that partners have found very helpful to support our response to COVID-19.

Replicability: This project built best practices, tools, and guidance for other California counties to adapt, posted at www.acgov.org/sustain/what/resilience/smoke.htm. Replication guidance will assist other jurisdictions to develop their own protocols, providing lessons learned and process notes to save time and effort. Cities within the county (including Albany, Alameda, and San Leandro) are replicating or sharing the protocol. Project best practices and outcomes have been shared nationwide through the Urban Sustainability Directors Network, and we will present at the National Disaster Preparedness Summit. The County's widely distributed "[Climate Change Adaptation Workshops Planning Guide](#)" was updated to make it more applicable to developing a smoke communications protocol, as an additional tool to support cross-agency coordination on climate resilience communications.

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