

Study Highlights Physical and Emotional Impact of California Wildfires

Frequent exposure to wildfire smoke causes breathing difficulties, sinus problems and more in Southern California communities.

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In recent years, California has experienced extreme wildfires, causing substantial loss of life and property. A UC Irvine study examined the effects of frequent exposure to wildfires and wildfire smoke on the physical and mental health of Southern California residents.

Wildfires in California [are 25% more likely](#) relative to preindustrial conditions. Low-income, marginalized communities are the least equipped to protect themselves from these threats.

Published in [Environmental Research Health](#), the study focused on local communities in the Eastern Coachella Valley (ECV), an arid region in Riverside County, that includes Thermal, Mecca, Oasis and North Shore communities. The Central Valley and ECV has long had a well-established Latino population; indeed, an estimated 92% of residents are from Latin America (mostly Mexico), according to a [UC Irvine news release](#).

From February to April 2023, researchers collected and analyzed personal experiences of evacuations, health effects and daily life disruptions caused by fire and smoke from 118 valley residents.

Many residents reported difficulties [breathing](#), sinus issues and eye irritation. These issues especially impacted children, elderly people and those with preexisting conditions.

The wildfires also impacted [mental health](#). Those living with persistent smoke and extreme heat can find it difficult or impossible to spend time outdoors due to poor air quality. For [children](#), this can lead to frustration and anger.

What's more, because most Latino residents work in agriculture or construction, heat and smoke contribute to lasting psychological [stress](#). The constant stress of wildfires exacerbates these stressors.

Some participants discussed the need for more resources in the valley to improve emergency preparedness, including better communication channels and fire prevention education in Spanish. Some said local community centers should be stocked with emergency kits containing bandages, first aid kits, masks, water, portable radios and more.

“Through our community-academia partnership, our findings can serve as a critical resource for policymakers, emergency response teams and public health officials aiming to develop more effective support systems to protect ECV’s most vulnerable populations,” said Suellen Hopfer, MS, PhD, a UC Irvine associate professor of health, society and behavior, the study’s corresponding author, said in the news release.