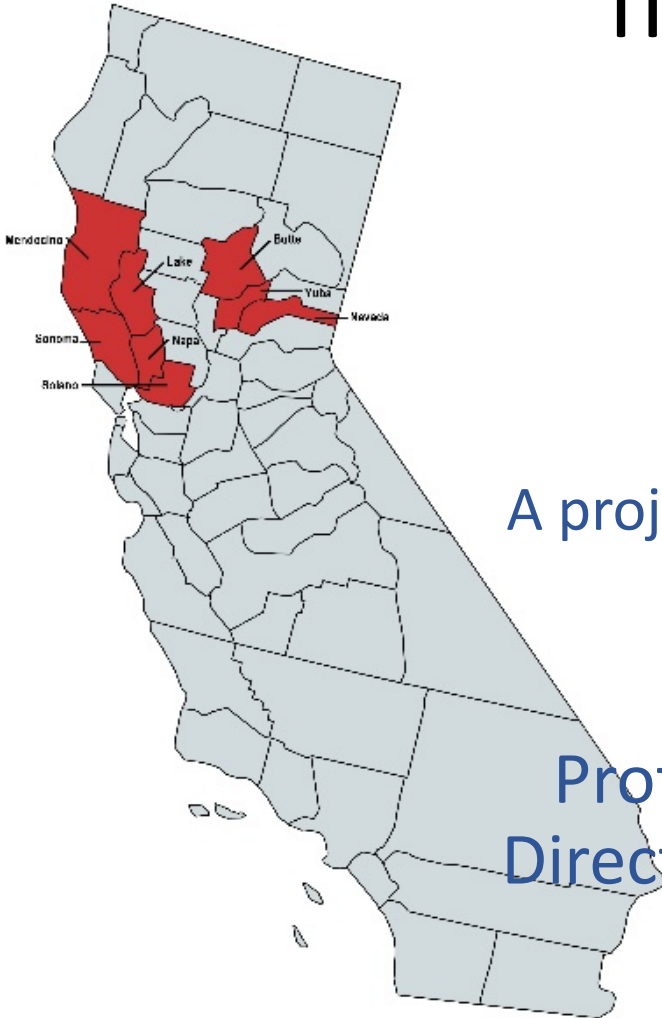


# Wildfires and Health: Assessing the Toll in Northern California



## WHAT-NOW CA?

A project of the UC Davis Environmental Health Sciences Center

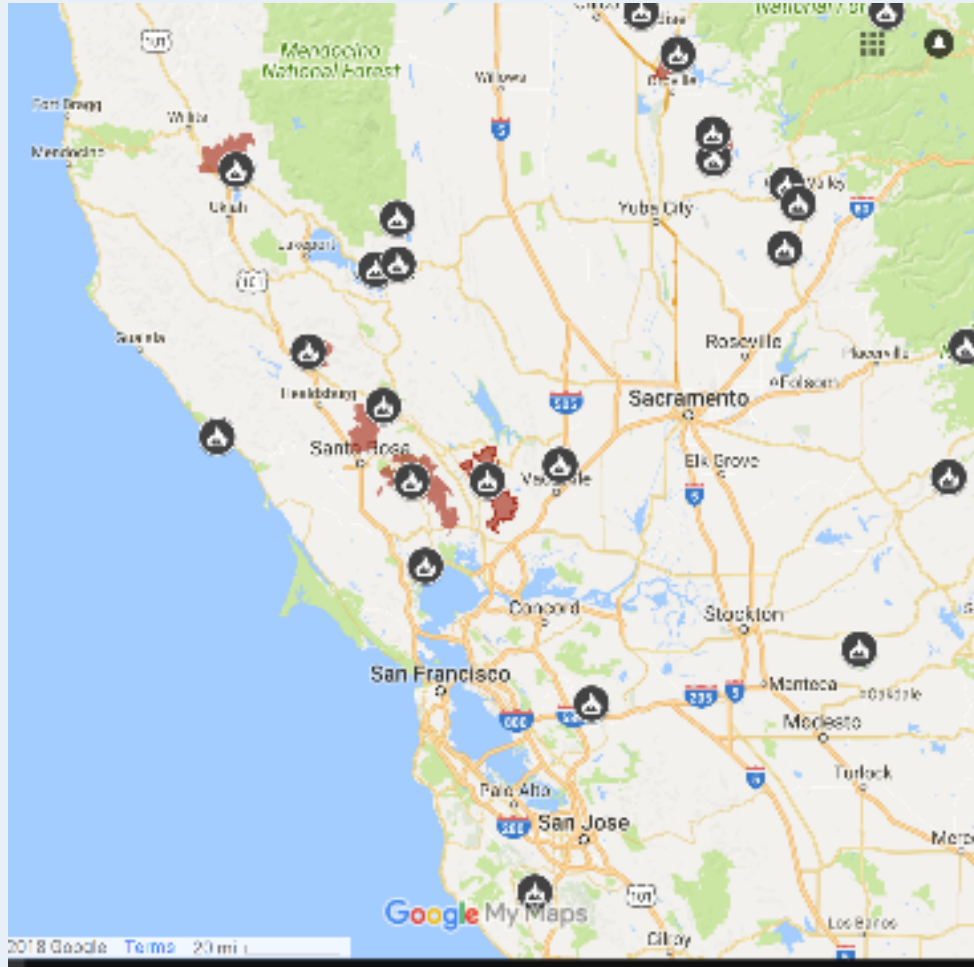
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# 2017 Northern California Wildfires: Immediate Impacts



October 8, 2017

- October 8: Extremely dry conditions & high temperatures, with a severe wind advisory
- Wildfires broke out in Butte, Lake, Mendocino, Napa, Nevada, Solano, Sonoma, and Yuba counties
- 44 people died
- close to 10,000 structures destroyed
- over 245,000 acres burned
- Well over 100,000 people evacuated
- Gusts up to 80 mph carried burning embers for miles
- Many residents were awakened in the middle of the night
- Some deaths occurred in vehicles as people tried to flee the area and got trapped by the fires

# Concerns over Long-term Impacts

Unusual fires: rapid spread, high temperatures, urban setting

## Exposures

- Rapidly moving fire
- Heavy smoke – first responders & residents – acute exposures
- Potential for release of toxic chemicals from combustion of building materials & interior furnishings – solvents, glues, formaldehyde, metals, halogenated compounds
- Residents trying to salvage personal effects, debris
- Debris – long-term

## Overall goals

- Understand experiences & needs of those affected directly
- Assist county health departments, communities, NGOs & medical professionals
- Determine nature of the exposures
- Describe health consequences
- Establish cohorts to follow forward for long-term impacts on health

# Activities

- Online survey for all households in NoCal
- Door-to-door survey - scientific sample of households in at least one county
- Describe impact on different neighborhoods. Assess if neighborhood sociodemographic factors modify long-term effects on health
- Collect blood samples
- Collect information and blood samples from women who were pregnant when fires broke
- Collect & analyze ash and ambient air samples for chemical composition
- Collect & analyze locally produced foodstuff
- Communicate results to diverse audiences

# Survey

- Household - Basic Information, location, members of household
- When the Fires Broke Out
- Evacuation Details - respondent, others
- Recovery Period, includes needs
- Handling Debris from the Fire
- Employment Status
- Health Status – before, during & since
- Demographic Characteristics
- Contact Information - for f/u studies

# Online Survey - Preliminary Descriptive Results

- 1607 respondents, 16 counties, includes 8 with fires
- 57% of responding households had someone who evacuated
- Among evacuees, 15% relocated to 3+ locations in first 6 weeks
- Among evacuees, about
- 62% of respondents had
- for 12%, their home wa
- 23% lost cell phone cov
- 10% were without safe

## Concerns expressed regarding:

Air quality or contamination due to the fires

Other health concerns or questions

Safety of locally grown produce

Soil contamination due to the fires

Water quality or contamination due to the fires

What people can do to protect themselves and their families from long-term fire-related exposures

# Preliminary Descriptive Results

- What health concerns or questions would you like to see addressed by local officials?

Air quality or contamination due to the fires	
Other health concerns or questions	
Safety of locally grown produce	
Soil contamination due to the fires	
Water quality or contamination due to the fires	
What people can do to protect themselves and their families from long-term fire-related exposures	

- What symptoms did you experience?