

# ***Household Perceptions of Physical and Mental Health Risks after the 2025 L.A. Fires***

Cristiane Ferrarezzi, **Andrew Whelton, Ph.D.**,  
Lauryn Spearing, Ph.D., Elizabeth Beyer,  
Joe Toland, Yao Chen, Monica Palomo, Ph.D.,  
Caitlin Proctor, Ph.D., Jianxi Su, Ph.D.,  
Anna Hoover, Ph.D.

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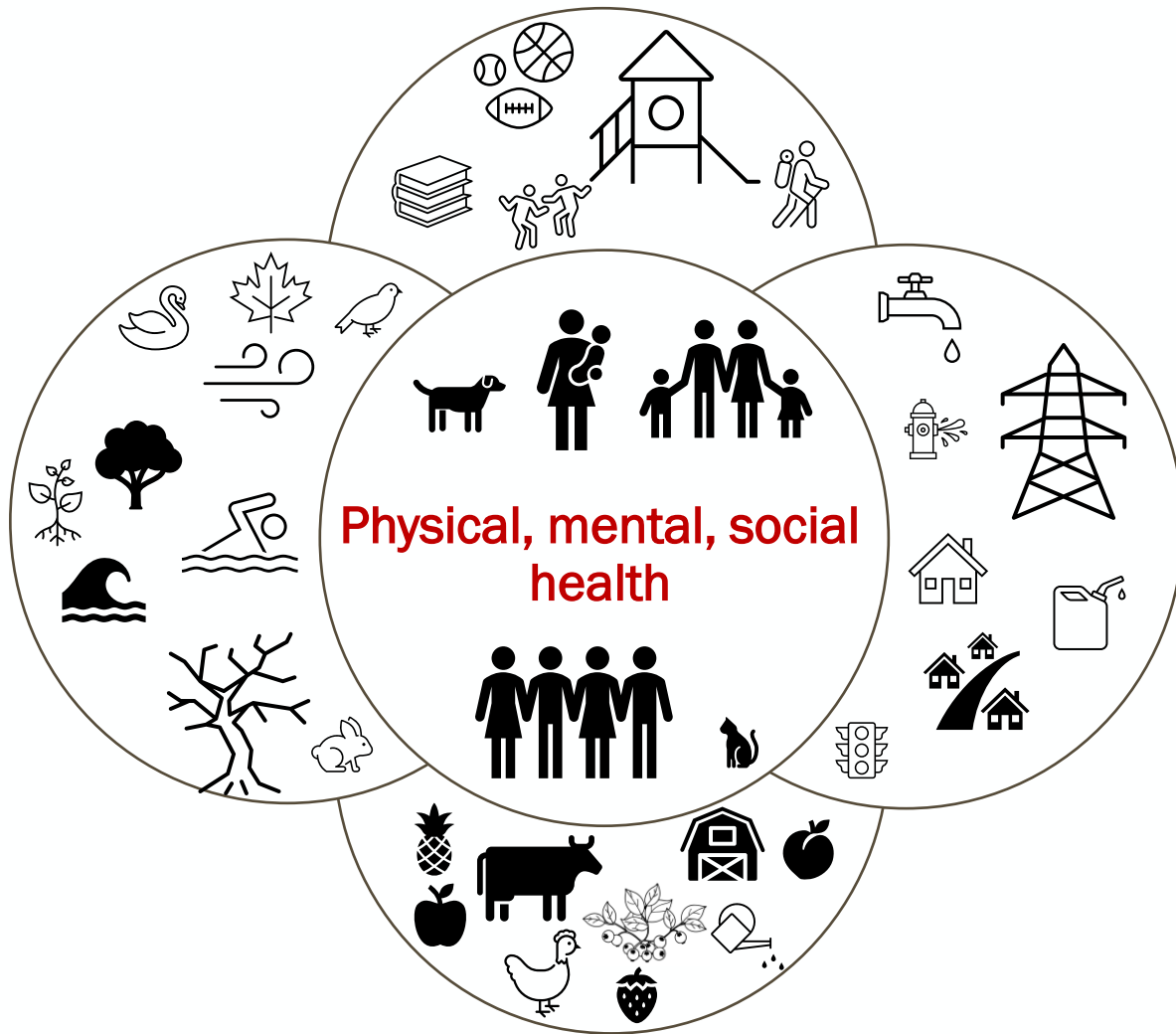
June 18, 2026

*Natural Hazards Meeting, Broomfield, Colo. USA*



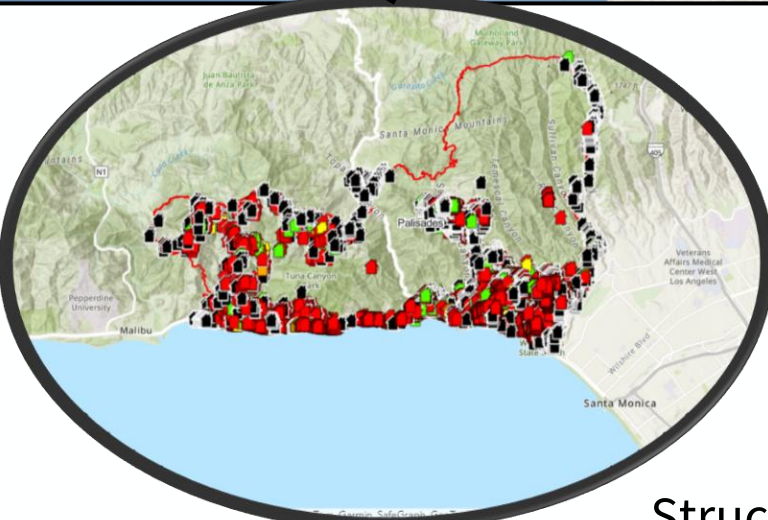
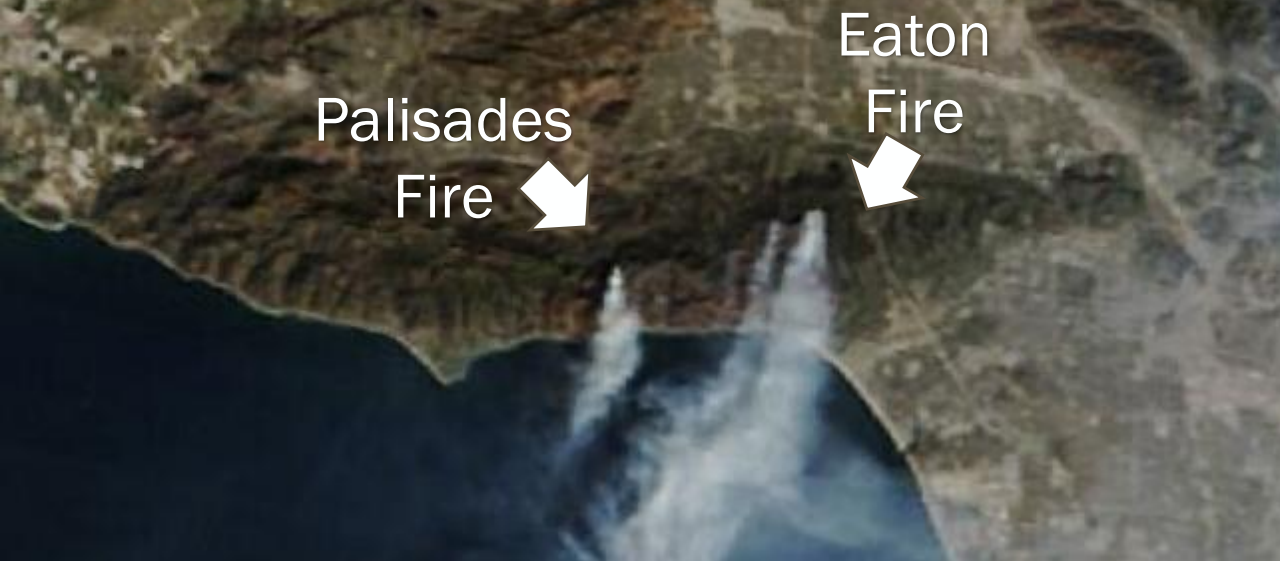
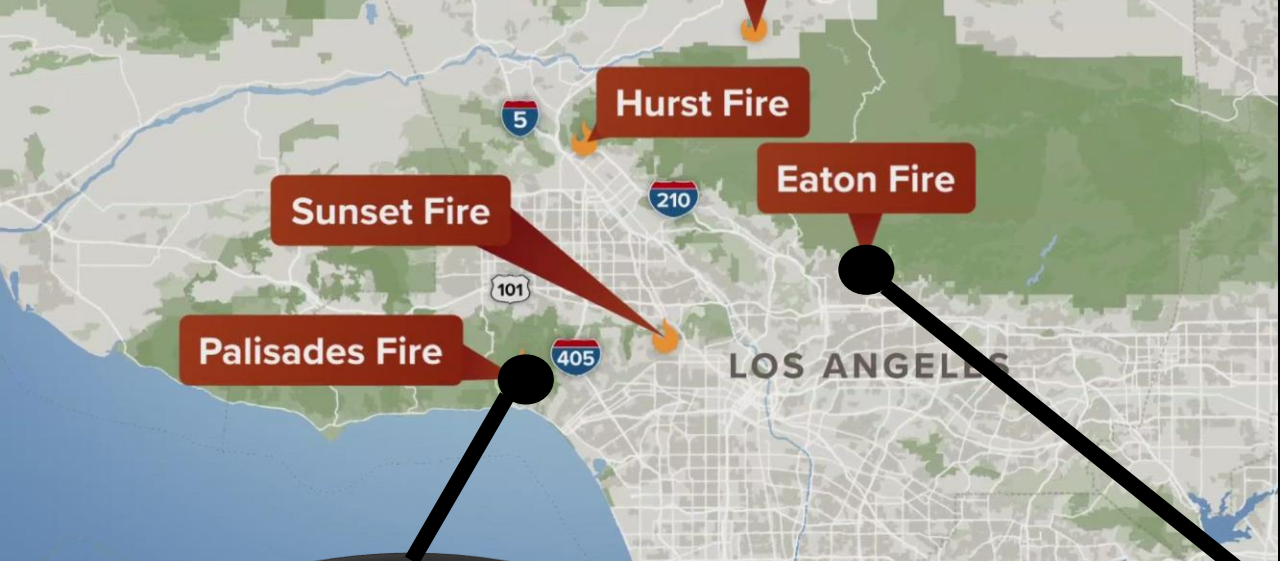
# Social systems

Natural systems



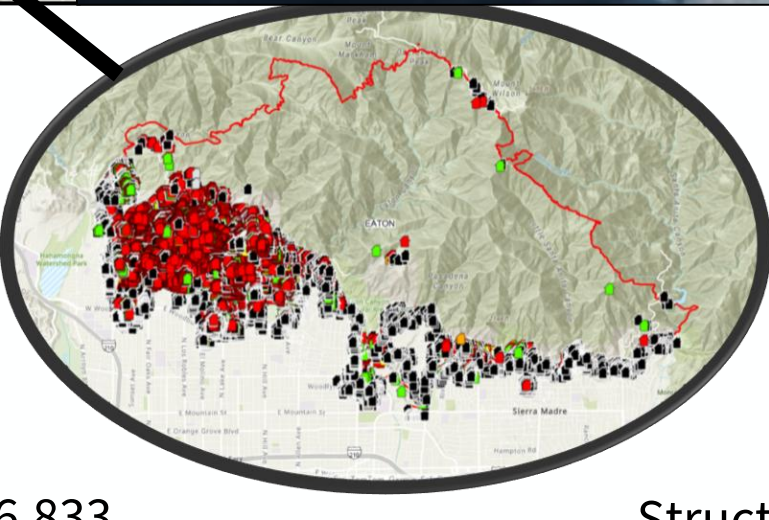
Infrastructure systems

# Food systems



## Palisades Fire

23,707 acres  
 12 Fatalities  
 Structures Destroyed = 6,833  
 Structures Damaged = 973



## Eaton Fire

14,021 acres  
 18 Fatalities  
 Structures Destroyed = 9,418  
 Structures Damaged = 1,073

*180,000+ people were under evacuation, 1.4% of L.A. County was burned.*

# Ongoing Studies

## HEART

### Health-based Env. Assess. & Re-Occupancy Testing

Evidence-based practices for safely restoring homes after a fire.

*100s of homes participating*

## ASHES

### Fire Ash & Soil History Evaluation

Evidence-based practices for safely returning property soil to pre-fire condition.

*Ash and 100,000+ soil sampling results across multiple states*

## CRIBS

### Chemical Risk In Baby Product Sorption

Evidence-based guidance on handling baby products exposed to contaminated drinking water.

*Designed with input from affected parents*

## REBUILD

### Recovery Efforts by Uniting Individuals, Listening, & Discovery

Improve household experiences with evac., housing, testing, chemical exposures, insurance, & rebuilding.

*1,229 households participating*

## L.A. Pools

### Swimming Pool Fire Recovery

Evidence-based practices for restoring fire-impacted swimming pools.

*20+ households participating*

## MITIGATE

### Mitigation of Impacts Through Innovative Guidance, Adaptation, & Technology

Evidence-based practices and technologies to reduce impacts and expedite recovery for fire resilience.

*10+ water utilities participating*

# Recovery Efforts by Uniting Individuals, Listening, and Discovery (REBUILD)

Weeks after fires and by community request: Onsite interviews, property visits.

We engaged with local and state electeds, public/occupational health, and environmental officials, and community groups.

**Our Study Goal:** To better understand household attitudes, experiences, and needs so that community and elected leaders can better address gaps pertaining to health, economic security, and rebuilding.

## 4-6 months after the fire

- Deployed online Qualtrics survey (IRB-2025-387)
- Households helped design it!
- 65+ Qs
- English and Spanish versions
- Adult participants

Household Impacts  
Evacuation & Displacement  
Property Impacts  
Environmental Safety Concerns  
Mental Health Impacts  
Property Testing & Remediation  
Trust & Looking to the Future  
Insurance & Rebuilding

Access free report here → <https://docs.lib.purdue.edu/red/2/>

# Onsite visit discoveries and household feedback helped inform our survey design



# Who responded to the survey?

**1,229 verified responses: 37.9% Palisades Fire vs. 62.1% Eaton Fire**

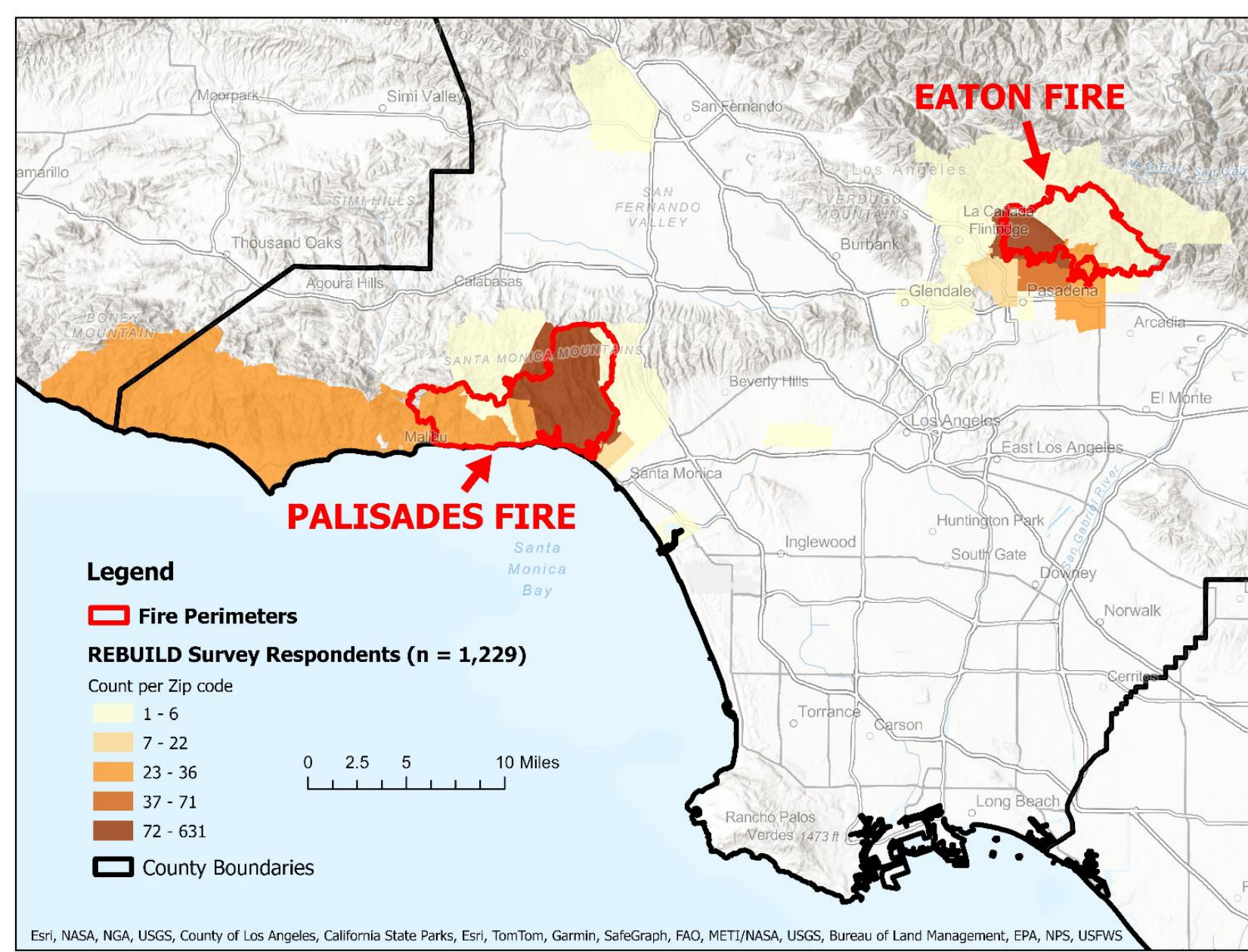
Male: 29 to 35 %

Female: 63 to 69 %

Race	Palisades Fire (%)	Eaton Fire (%)
Black	0	5
Asian	8	8
White	85	71
Latina/o	1	3
Multiple races	7	13

Education	Palisades Fire (%)	Eaton Fire (%)
Some high school or less	0	0
High school diploma or GED	1	1
Some college, but no degree	5	5
Associates or technical degree	1	4
Bachelor's degree	30	34
Graduate or professional degree	63	56
Prefer not to say	1	1

U.S. Census	Palisades	Altadena
Female	53%	52%
White	82%	47%
Bachelor's degree or higher	79%	52%



When mapped by zipcode, most households lived **INSIDE** a fire perimeter

**94.2%**  
Palisades Fire  
VS.

**73.4%**  
Eaton Fire

# Who responded to the survey?

**Nearly all** households had insurance before the fires

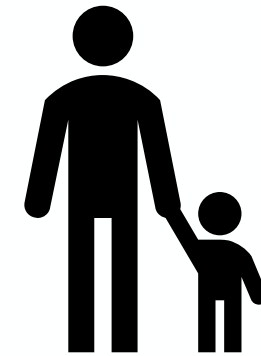
**98.8%** Palisades vs. **99.0%** Eaton Fires (n= 924)

**About two-thirds** of the households had pets, which is similar to the 66% 2023 U.S. national average reported by the American Pet Products Association.

**60.5%** Palisades vs. **69.5%** Eaton Fires (n= 1,206)

**Less than half** of the households had children, which is similar to the 2024 U.S. Census national average of 39%.

**35.2%** Palisades vs. **41.1%** Eaton Fires (n= 973)

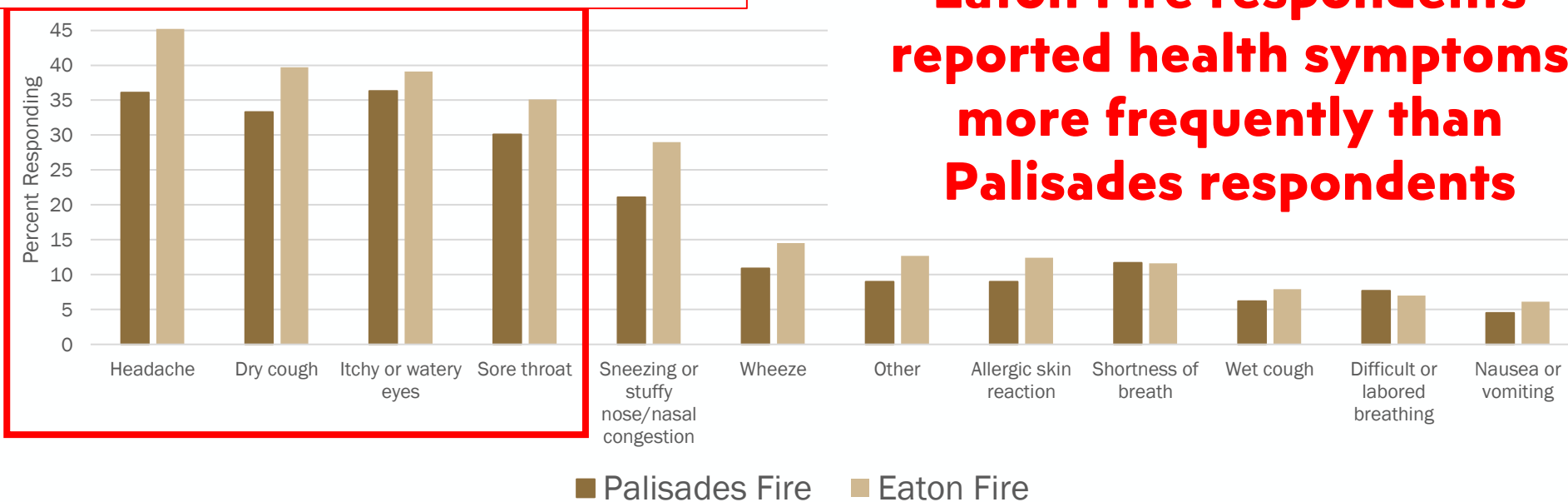


# Self-Reported Health Symptoms

“Have you experienced any of the following health symptoms that you think may be related to smoke or air quality impacts of the fire? Select all that apply. If you had a symptom but do not think it was related to the fire, do not select it.”

– The REBUILD Survey

**Matches the 6 mo. Marshall Fire survey**



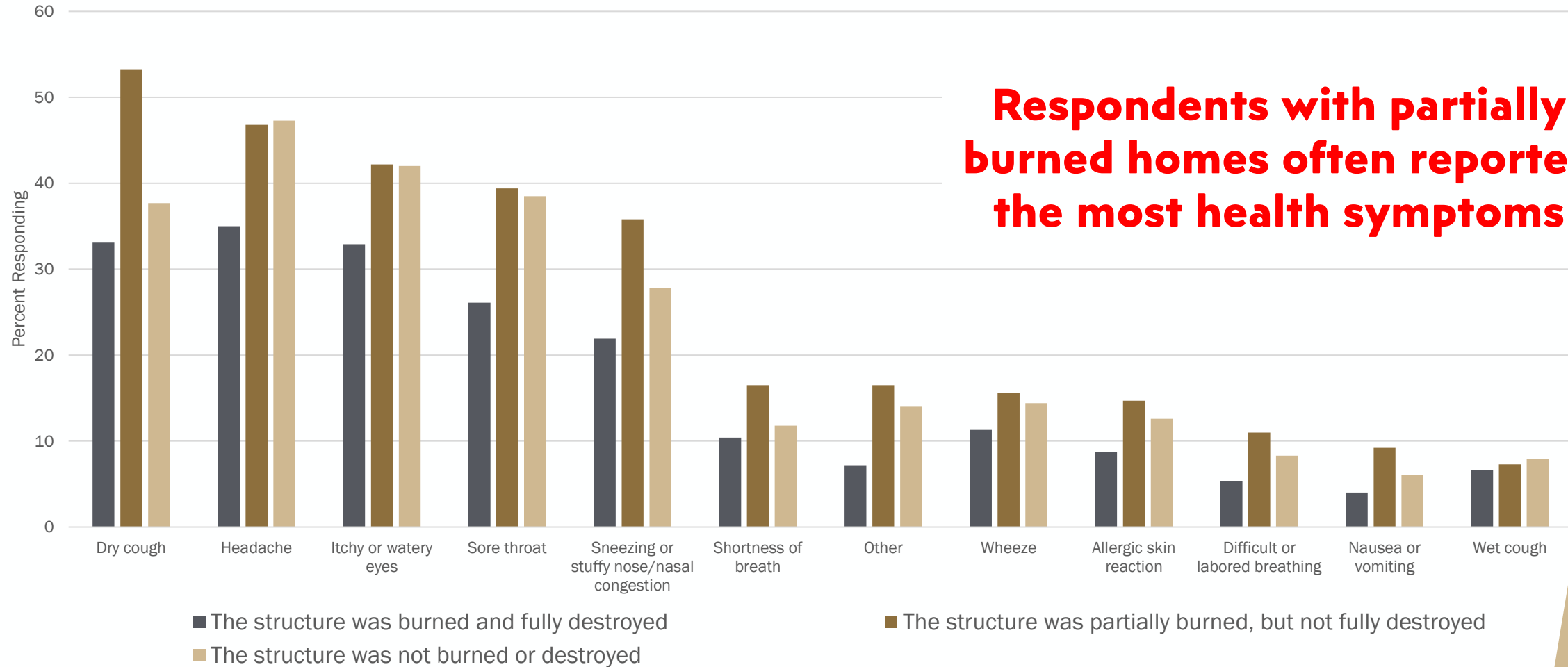
**Eaton Fire respondents reported health symptoms more frequently than Palisades respondents**

n= 1074

# Self-Reported Health Symptoms

## Condition of Home

**Respondents with partially burned homes often reported the most health symptoms**



n= 1073

# Long-term health concerns of returning home

“Do you or someone else in your household have concerns about the long-term health consequences of returning home after the fire?”

– The REBUILD Survey

**More than 3 of 4** households had concerns

**78.9%** Palisades vs. **82.2%** Eaton Fires

Respondents with partially damaged or standing homes had the most concern about long-term health



n= 1072

# Uncertainty about environmental safety

Many of the households believed they had experienced anxiety, stress, or depression associated with damage to...

Response	Palisades Fire (%)	Eaton Fire (%)
Outdoor air	75.4	84.0
Soil	72.9	84.9
Indoor air	68.7	74.6
Natural places like parks, hiking spots	70.4	77.3
Drinking water	51.2	60.3

n= 1,073



More than 3 of 4 households were concerned that debris removal pollution would affect the safety of schools (n= 1,073)

54% for the 2018 Camp Fire, Calif.

Odimayomi et al. Nat Hazards 2021.

<https://doi.org/10.1007/s11069-021-04714-9>

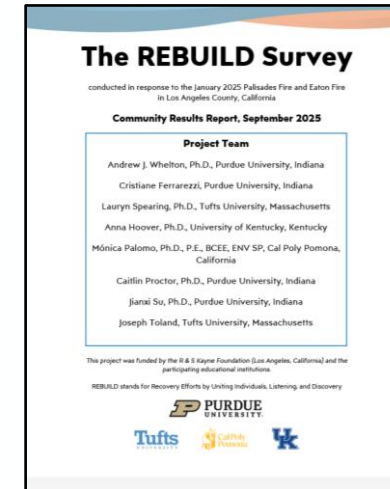
# Conclusions

- ❑ 4-6 months after the fires self-reported health symptoms were similar type and frequency to 6 months after the 2021 Marshall Fire in Boulder, Colorado.
- ❑ Households with partially damaged and undamaged homes expressed the greatest number concerns about potential long-term health impacts.
- ❑ Households associated their concerns about their outdoor and indoor environmental safety to their own anxiety, stress, and/or depression.

Analysis and interpretation of study results ongoing.  
To avoid or lessen health impacts, we are moving towards a multidisciplinary, public-private cross sector effort to address fire challenges facing natural, infrastructure, social, and food systems.

Access free report here

<https://docs.lib.purdue.edu/red/2/>



Report is  
freely  
available



SCAN ME

# Thank you

Andrew Whelton, Ph.D.  
awhelton@purdue.edu  
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## Special thanks to...



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Andrew Whelton's Wallet

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