TRACKING CALIFORNIA
INFORMING ACTION FOR HEALTHIER COMMUNITIES

DATA BRIEF

Invisible Patients, Part 2: Tracking the Impact of Heat on Unhoused Californians

June 2026

Heat-related illness (HRI) can lead to hospitalization or death, and people experiencing homelessness are at particularly high risk. Without access to air conditioning, shaded shelter, or drinking water, unhoused individuals are often exposed to dangerous outdoor temperatures for extended periods. Conditions such as outdoor sleeping, physical labor, substance use, and chronic health conditions further compound their vulnerability.[4,5]

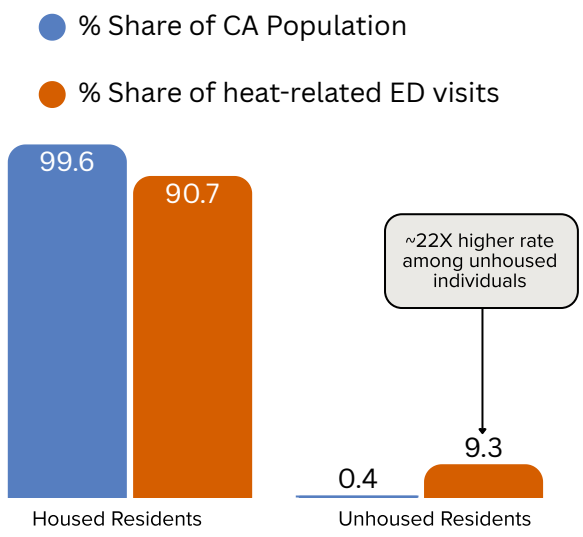
Historically, it has been difficult to assess the impact of extreme heat on unhoused populations because housing status was not consistently documented in hospital discharge records. This surveillance data gap limited the ability of public health agencies to plan targeted interventions during heat events.

In 2019, California passed Senate Bill 1152, requiring hospitals to inquire about a patient's housing status and improve discharge planning for those experiencing homelessness. Combined with broader California Department of Health Care Access and Information (HCAI) directives to improve coding practices, this policy change made it possible to identify emergency department visits by housing status in discharge data.[6,7] A companion Tracking California data brief describes how this coding update has affected CDC environmental health data more broadly.[8]

METHODS

We analyzed 2019–2020 emergency department (ED) visits from HCAI, including ED visits that resulted in hospital admission, among California residents. Patients experiencing homelessness at the time of their hospital visit are identified through a residential zip code of "ZZZZZ".

Figure 1. Unhoused Californians face outsized heat-related health burden



KEY TAKEAWAYS

- **Unhoused Californians face a heat-related illness burden far exceeding their share of the population**, accounting for nearly 1 in 10 heat-related ED visits despite representing less than 0.4% of California's population.
- **This burden was invisible until recently.** Before SB 1152, housing status wasn't recorded in hospital discharge data, making it impossible to measure heat's impact on unhoused populations.
- **Better data make better response possible**. A 2023 update requiring "best estimate" zip codes will soon enable geographic analysis of heat risk, helping local health departments direct resources where they're needed most.

Methods cont'd

We calculated the total number of ED visits for heat-related illness among California residents and identified how many involved unhoused patients. We also examined demographic patterns across sex, age, and race/ethnicity, comparing unhoused patients to housed patients with the same condition. Cells with fewer than 12 observations are suppressed to protect patient privacy.

RESULTS

During 2019–2020, there were **11,547 ED visits for heat-related illness** among California residents (Table 1). Of these, **1,076 visits (9%) were among unhoused patients**. Unhoused individuals visit the ED for heat-related illness at 22 times the rate of the general population (Figure 1).

Sex

Among unhoused HRI patients, 73% (787/1,076) were male, compared to 64% of housed HRI patients. Unhoused men visited the ED for heat-related illness at a rate 13% higher than their share among housed patients.

Age

Nearly 70% (728/1,076) of unhoused HRI patients were working-age adults between 35 and 64, with an additional 19% (206/1,076) aged 18–34. Children and older adults made up only a small fraction of unhoused HRI visits. This contrasts with the common framing of heat as primarily an elderly health risk. Among unhoused Californians, the burden falls overwhelmingly on working-age adults.

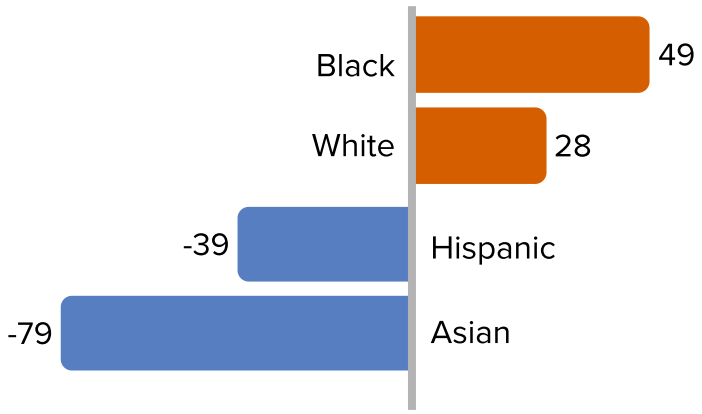
Race and Ethnicity

White individuals accounted for the largest share of HRI visits among unhoused patients (56%), followed by Hispanic (22%) and Black individuals (12%). However, compared to their share of the overall population, Black and White unhoused patients were significantly overrepresented, while Hispanic and Asian patients were underrepresented (Figure 2).

Table 1. Counts of HRI ED Visits by Housing Status and Demographic Group

	Housed	Unhoused
Total	**10,471**	**1,076**
Gender		
Female	3,719	289
Male	6,752	787
Race and Ethnicity		
Black	873	133
Asian	498	11
Hispanic	3,775	238
White	4,603	606
Other	722	88
Age		
0–4	133	Suppressed
5–17	844	Suppressed
18–34	2,781	206
35–64	4,294	728
65+	2,419	136

Figure 2. Racial Disparities in Unhoused HRI ED Visits Relative to Population Share



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DISCUSSION AND OPPORTUNITIES

These findings demonstrate that people experiencing homelessness bear a dramatically disproportionate burden of heat-related illness in California. **At 9% of all heat-related ED visits, unhoused individuals are among the most heat-vulnerable people in the state.**

The demographic profile of unhoused HRI patients highlights specific populations at greatest risk. The concentration among working-age men (35–64) within the unhoused population challenges the conventional focus on elderly populations in heat preparedness. The overrepresentation of Black individuals among unhoused HRI patients — 49% higher than among housed patients — points to compounding inequities of race, housing, and environmental exposure that warrant targeted public health attention.

These data have direct implications for heat response planning. Cooling centers, hydration stations, and outreach during heat events must be designed not just to reach the populations most at risk, but to meet their specific needs, particularly those of working-age unhoused men in urban areas. Hospital discharge planning under SB 1152 can incorporate heat safety resources for unhoused patients discharged during warm months. Local health departments can also use these data to advocate for resources proportional to the actual burden, rather than relying on county-level rates that exclude the unhoused population entirely.

The ability to produce this analysis is itself a direct result of the 2019 coding improvement. Before hospitals reliably documented housing status, these 1,076 heat-related ED visits were simply "missing data" — indistinguishable from out-of-state tourists or data errors. The coding update made previously invisible patients visible in the data for the first time. As California faces increasingly severe heat events, continued and expanded coding of housing status will be essential for tracking whether heat interventions are reaching those most in need.

ABOUT THE DATA

This analysis uses 2019–2020 emergency department and inpatient hospitalization data from the California Department of Health Care Access and Information (HCAI).

Homelessness is identified through patient zip code "ZZZZZ" or ICD-10-CM diagnosis code Z59.0. Cells with fewer than 12 observations are suppressed to protect patient privacy.

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