

# CALIFORNIA Health Care Almanac



DECEMBER 2021

## California Emergency Departments: A Critical Source of Care

# Executive Summary

California’s emergency departments (EDs) provide a critical source of health care to people with acute medical conditions or those who have experienced trauma or injury, and are expected to treat all patients regardless of their ability to pay. They also provide an important entry point for inpatient hospital care. In 2019, 329 acute care hospitals in California operated a licensed ED. Between 2009 and 2019, the number of EDs remained relatively stable, while the number of individual treatment stations increased 23% from 6,777 to 8,362. In 2019 California’s EDs handled 14.9 million visits, 27% more than in 2009.

*California’s Emergency Departments: A Critical Source of Care* looks at the most recent data on supply, visits, and wait times, as well as trends from 2009 to 2019.

**KEY FINDINGS INCLUDE:**

- The number of ED treatment stations increased in all regions throughout the state between 2009 and 2019, even those regions that experienced a decrease in emergency departments. In 2019, emergency department visits per 1,000 residents ranged from a low of 316 in Orange County to a high of 501 in the Northern and Sierra region.
- Medi-Cal was the expected payer for 42% of all ED visits in 2019, compared to 26% for private payers and 23% for Medicare.
- While the majority of ED visits (87%) did not result in a hospital admission, one in six of those not admitted were for conditions severe enough to be life-threatening.
- California ED patients who were sent home spent nearly three hours, on average, in the ED. For those with psychiatric/mental conditions, the median stay was more than four hours.

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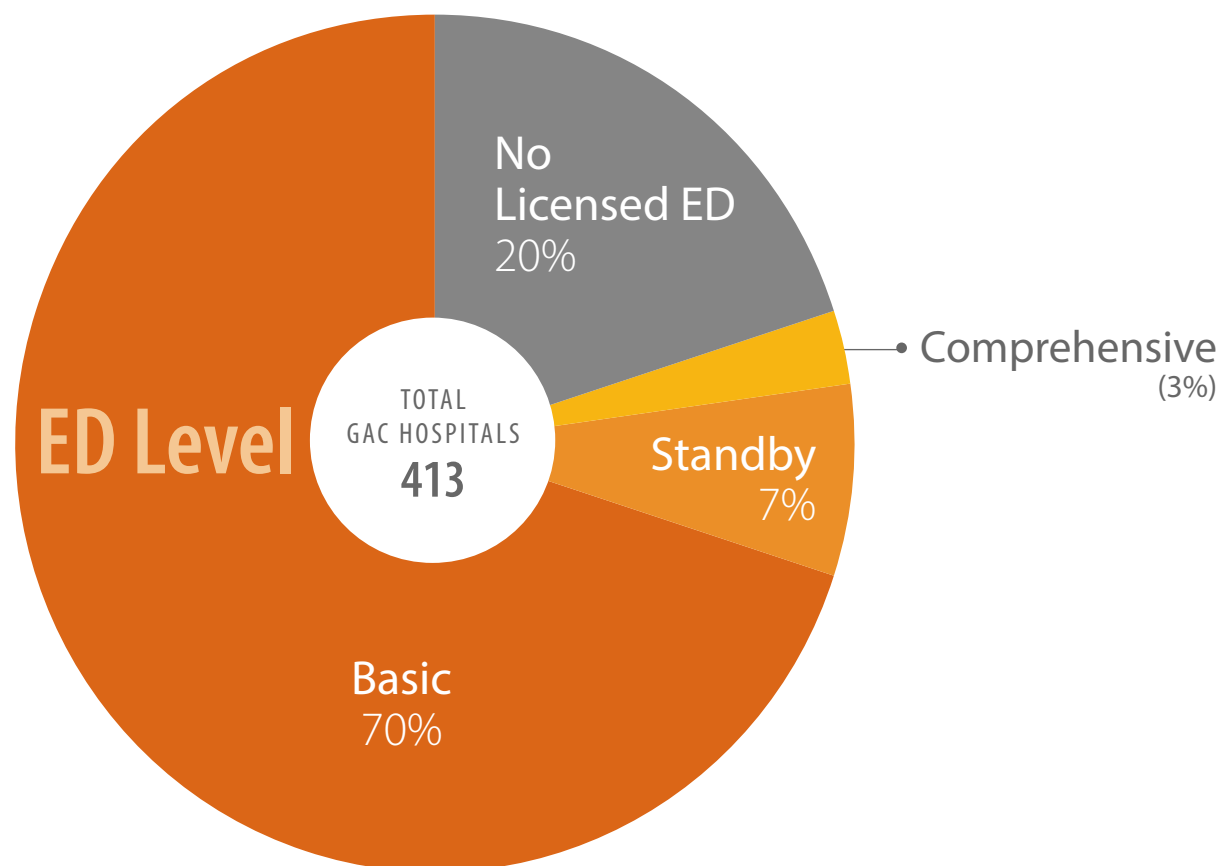
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# General Acute Care Hospitals

by ED Level, California, 2019



## California Emergency Departments Supply

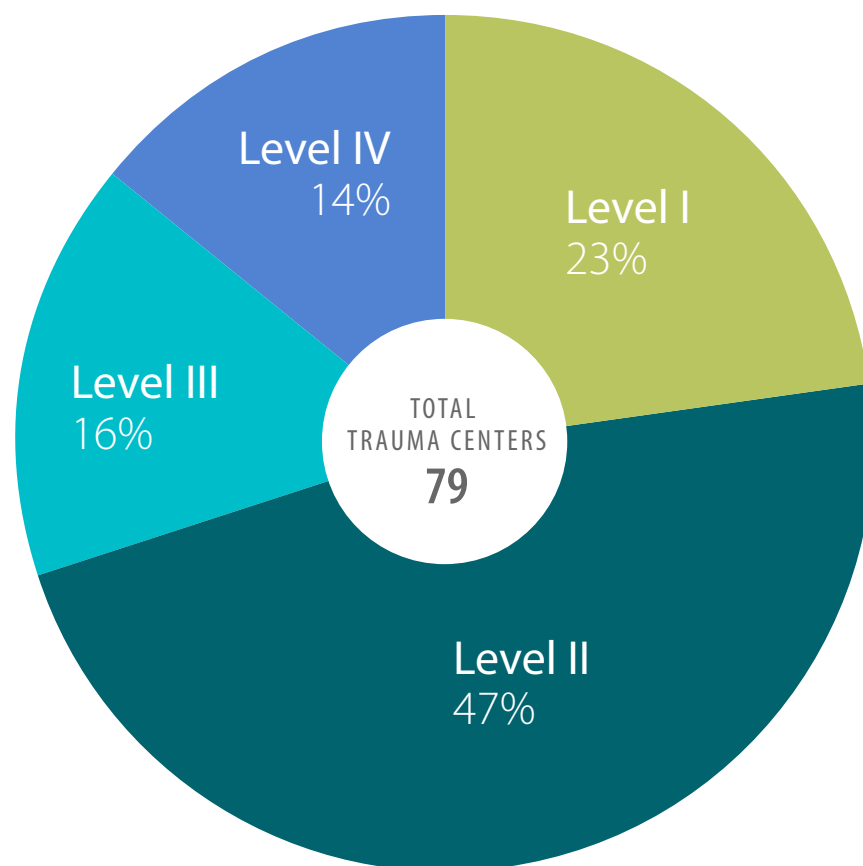
In 2019, 80% of California's 413 general acute care hospitals operated a licensed emergency department (ED). EDs provide different levels of service, with the majority licensed at the basic level.

Notes: GAC is general acute care. *Standby* emergency departments (EDs) have an ED physician, at minimum, on call. *Basic* EDs have an ED physician on staff 24 hours a day, year-round. *Comprehensive* EDs have an ED physician on staff 24 hours a day year-round, as well as other physician specialties (including thoracic surgeons, neurosurgeons, orthopedic surgeons, and pediatricians) available 24 hours a day year-round. The hospital must also provide burn, acute dialysis, and cardiovascular surgery services.

Source: 2019 Calendar Year Hospital Utilization Pivot Table, California Health and Human Services Agency.

# General Acute Care Hospitals

## by Trauma Center Level, California, 2019



### California Emergency Departments Supply

Trauma centers treat patients with traumatic injuries, such as those sustained from car accidents and gunshots. Local emergency medical services agencies designate trauma center levels based on the equipment and resources available. Level I centers are equipped to provide the most complex care. In 2019, California had 79 trauma centers, of which 18 were level I.

Notes: *Trauma centers* are designated by a local emergency medical services agency (EMSA) and include personnel, services, and equipment necessary for the care of trauma patients. General requirements include a trauma program medical director, a trauma nurse coordinator, a basic emergency department (minimum), a multidisciplinary trauma team, and specified service capabilities. EMSA has established four trauma center designations, with Level I used for those equipped to provide the most complex care.

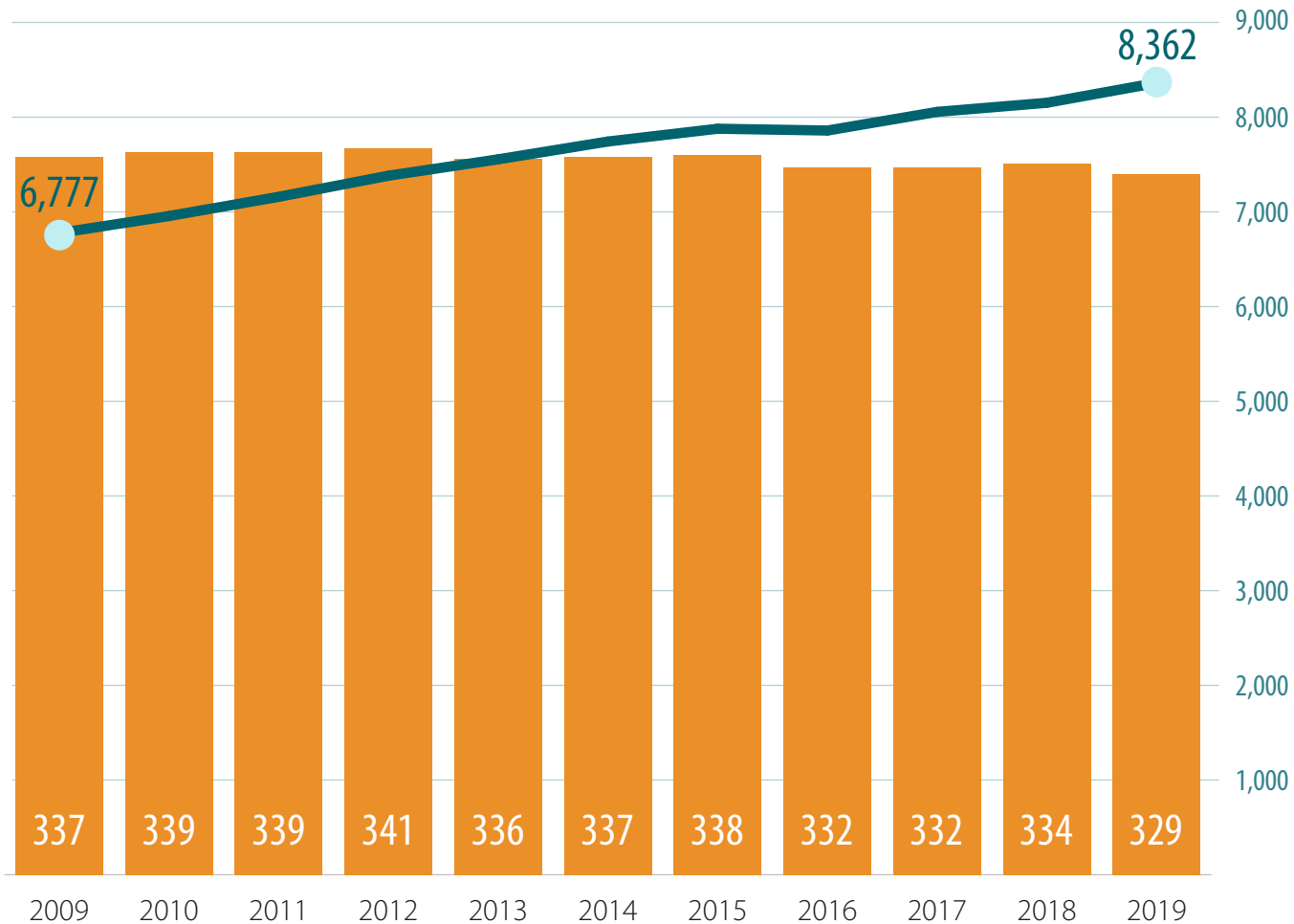
Sources: 2019 Calendar Year Hospital Utilization Pivot Table, California Health and Human Services Agency; and California Emergency Medical Services Authority.

# Emergency Departments and Treatment Stations

## California, 2009 to 2019

EMERGENCY DEPARTMENTS

TREATMENT STATIONS



### California Emergency Departments Supply

While the number of emergency departments remained relatively stable, the number of treatment stations increased by 23% between 2009 and 2019.

Note: A *treatment station* is a specific place within the emergency department that is available to treat one patient at a time.

Source: *Calendar Year Hospital Utilization Pivot Table* (2009–19), California Health and Human Services Agency.

# Emergency Departments and Treatment Stations by Region, California, 2009 vs. 2019

	EMERGENCY DEPARTMENTS			TREATMENT STATIONS		
	2009	2019	CHANGE	2009	2019	CHANGE
Central Coast	24	24	0%	356	472	33%
Greater Bay Area	67	67	0%	1,332	1,661	25%
Inland Empire	31	35	13%	683	971	42%
Los Angeles County	76	71	-7%	1,758	1,973	12%
Northern and Sierra	39	37	-5%	351	444	26%
Orange County	25	26	4%	578	704	22%
Sacramento Area	16	15	-6%	422	479	14%
San Diego Area	20	19	-5%	541	770	42%
San Joaquin Valley	39	35	-10%	756	888	17%
<b>California</b>	<b>337</b>	<b>329</b>	<b>-2%</b>	<b>6,777</b>	<b>8,362</b>	<b>23%</b>

## California Emergency Departments Supply

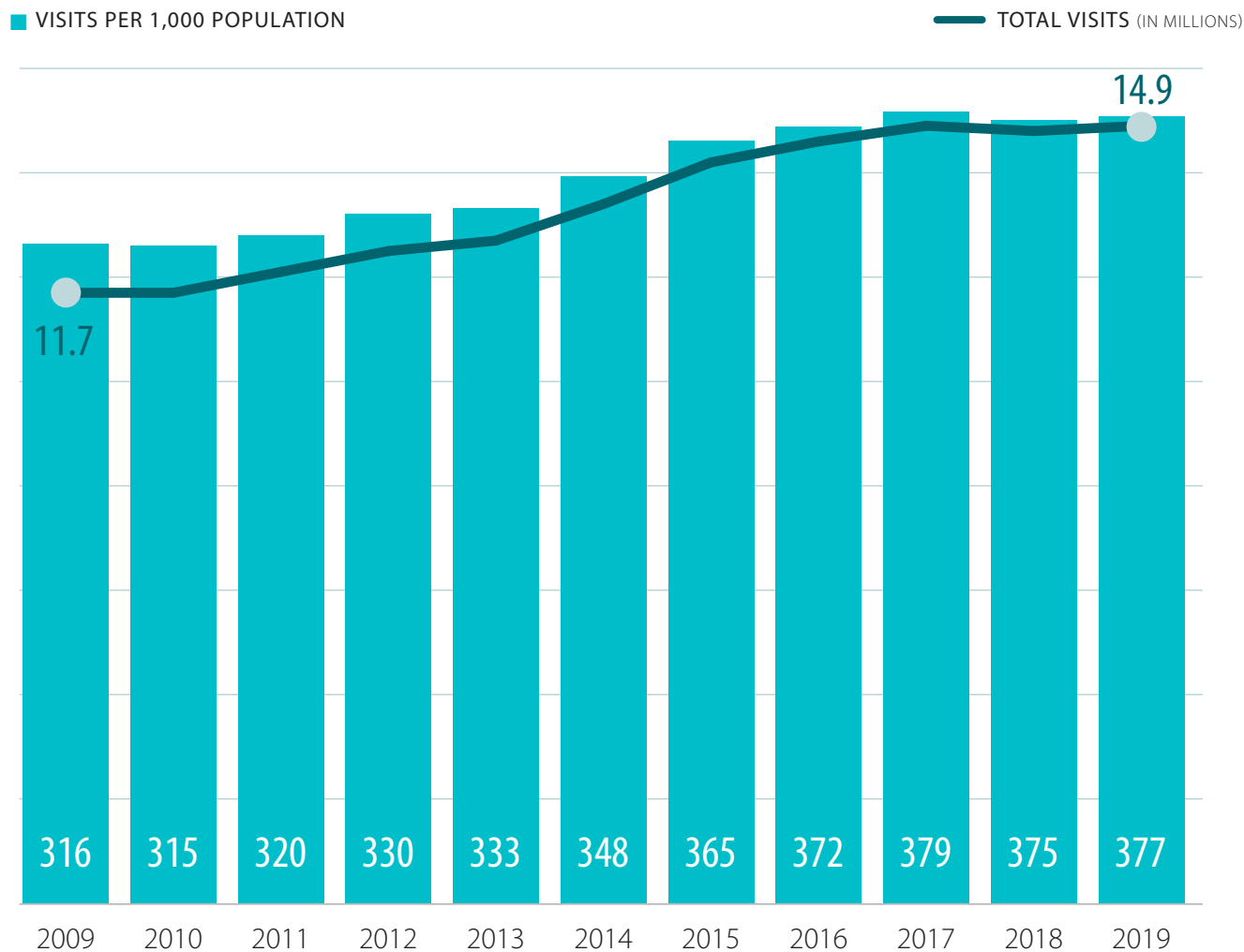
All regions in California experienced an increase in the number of available treatment stations between 2009 and 2019. The Inland Empire was the only region that had an increase in the number of emergency departments.

Notes: A *treatment station* is a specific place within the emergency department that is available to treat one patient at a time. See the appendix for a map of counties in each region.

Sources: *2019 Calendar Year Hospital Utilization Pivot Table*, California Health and Human Services Agency (CHHS); and *2009 Calendar Year Hospital Utilization Pivot Table*, CHHS.

# Emergency Department Visits

## California, 2009 to 2019



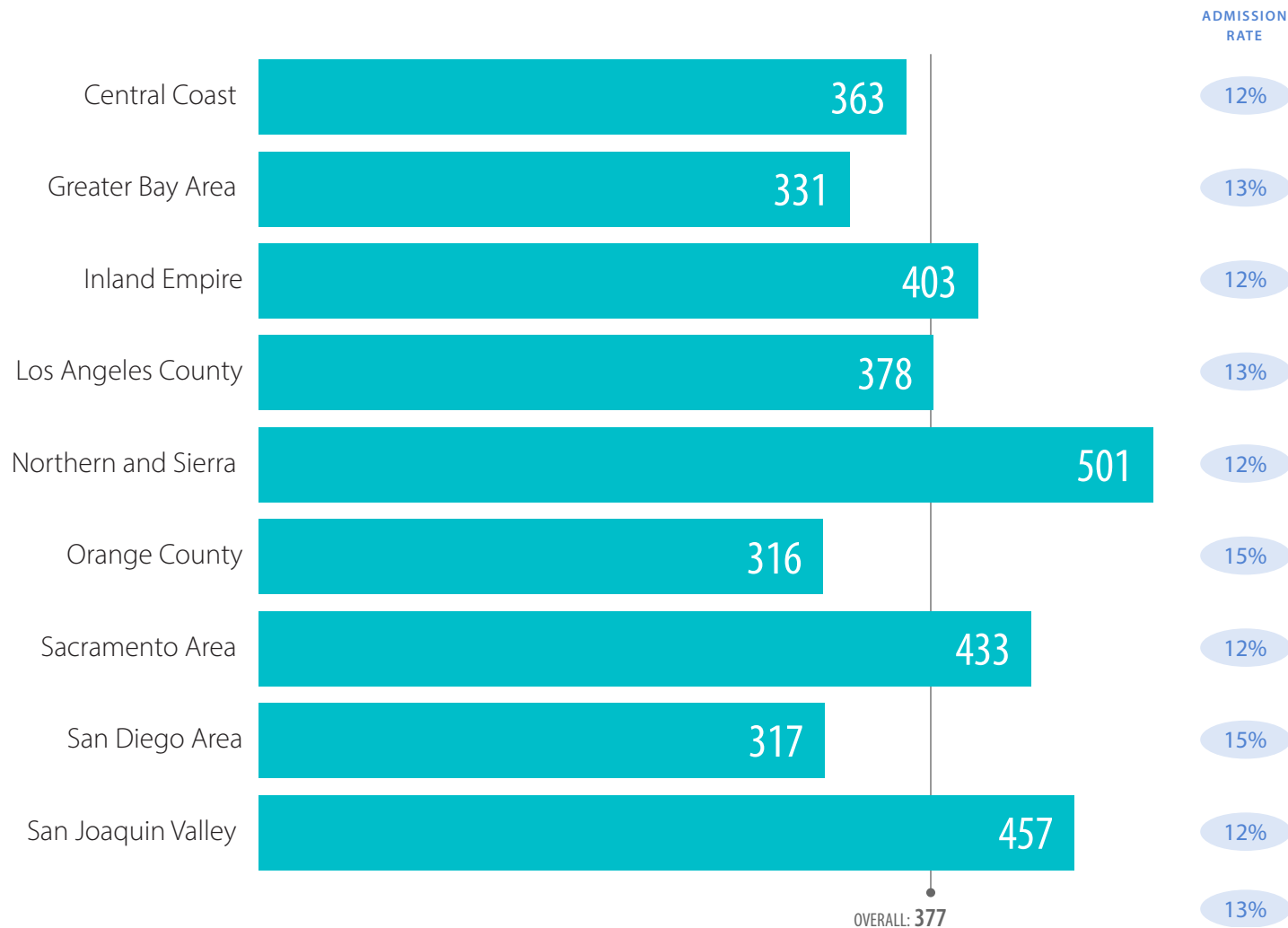
### California Emergency Departments

#### Visits

Between 2009 and 2019, the number of emergency department visits increased by 27%, while the state's overall population increased by 7% (not shown).

Sources: Author calculations based on *Calendar Year Hospital Utilization Pivot Table* (2009–19), California Health and Human Services Agency; *Intercensal Estimates of the Resident Population by Five-Year Age Groups, Sex, Race, and Hispanic Origin for Counties in California: April 1, 2000 to July 1, 2010*, US Census Bureau; and *Annual Estimates of the Resident Population for Counties in California: April 1, 2010 to July 1, 2019*, US Census Bureau.

# Emergency Department Visits per 1,000 Population by Region, California, 2019



## California Emergency Departments Visits

In 2019, emergency department visits per 1,000 residents ranged from a low of 316 in Orange County to a high of 501 in the Northern and Sierra region.

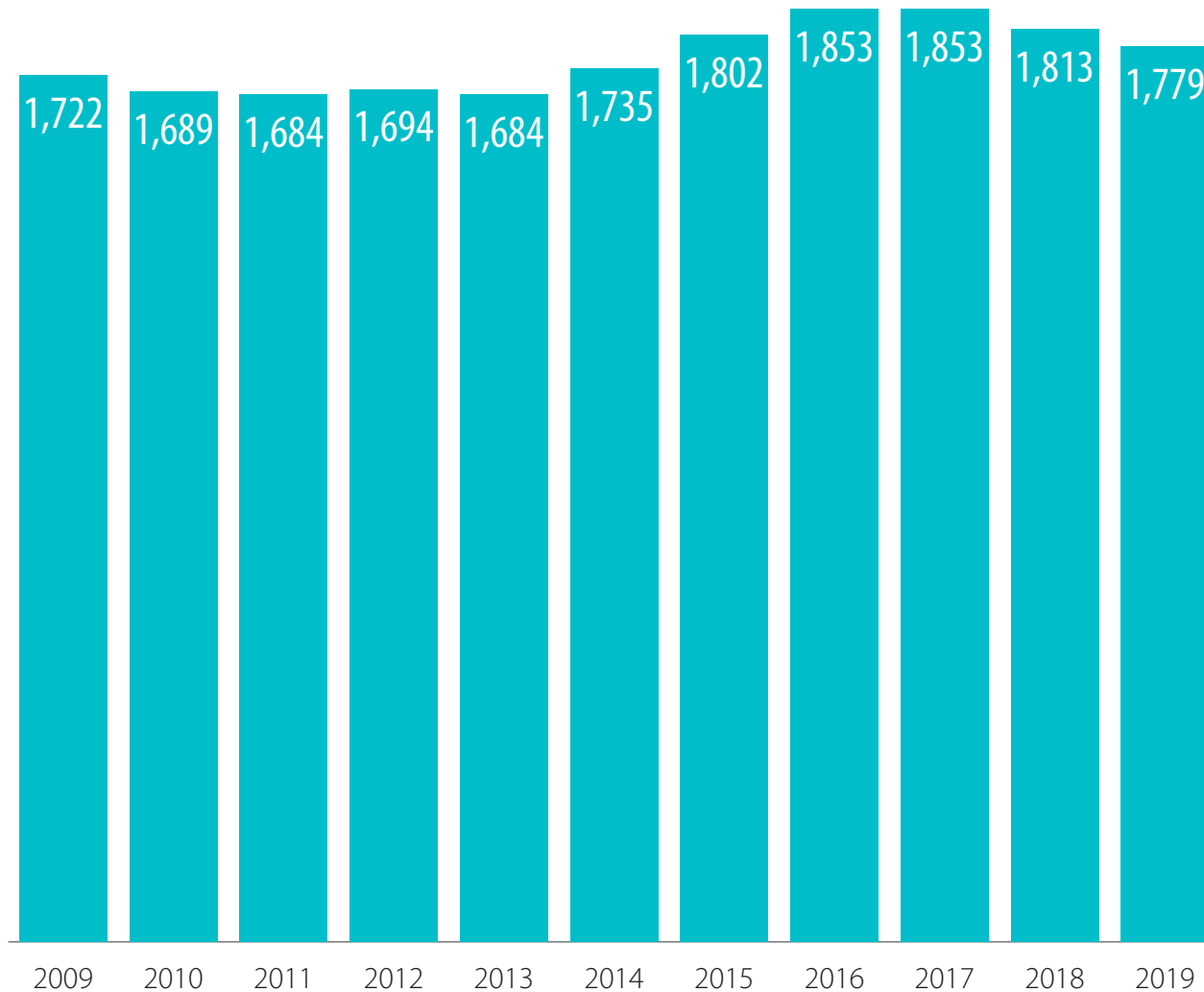
Note: See the appendix for a map of counties in each region.

Sources: Author calculations based on 2019 Calendar Year Hospital Utilization Pivot Table, California Health and Human Services Agency; and Annual Estimates of the Resident Population for Counties in California: April 1, 2010 to July 1, 2019, US Census Bureau.



# Emergency Department Visits per Treatment Station

California, 2009 to 2019



Note: A *treatment station* is a specific place within the emergency department that is available to treat one patient at a time.

Source: Author calculations based on *Calendar Year Hospital Utilization Pivot Table* (2009–19), California Health and Human Services Agency.

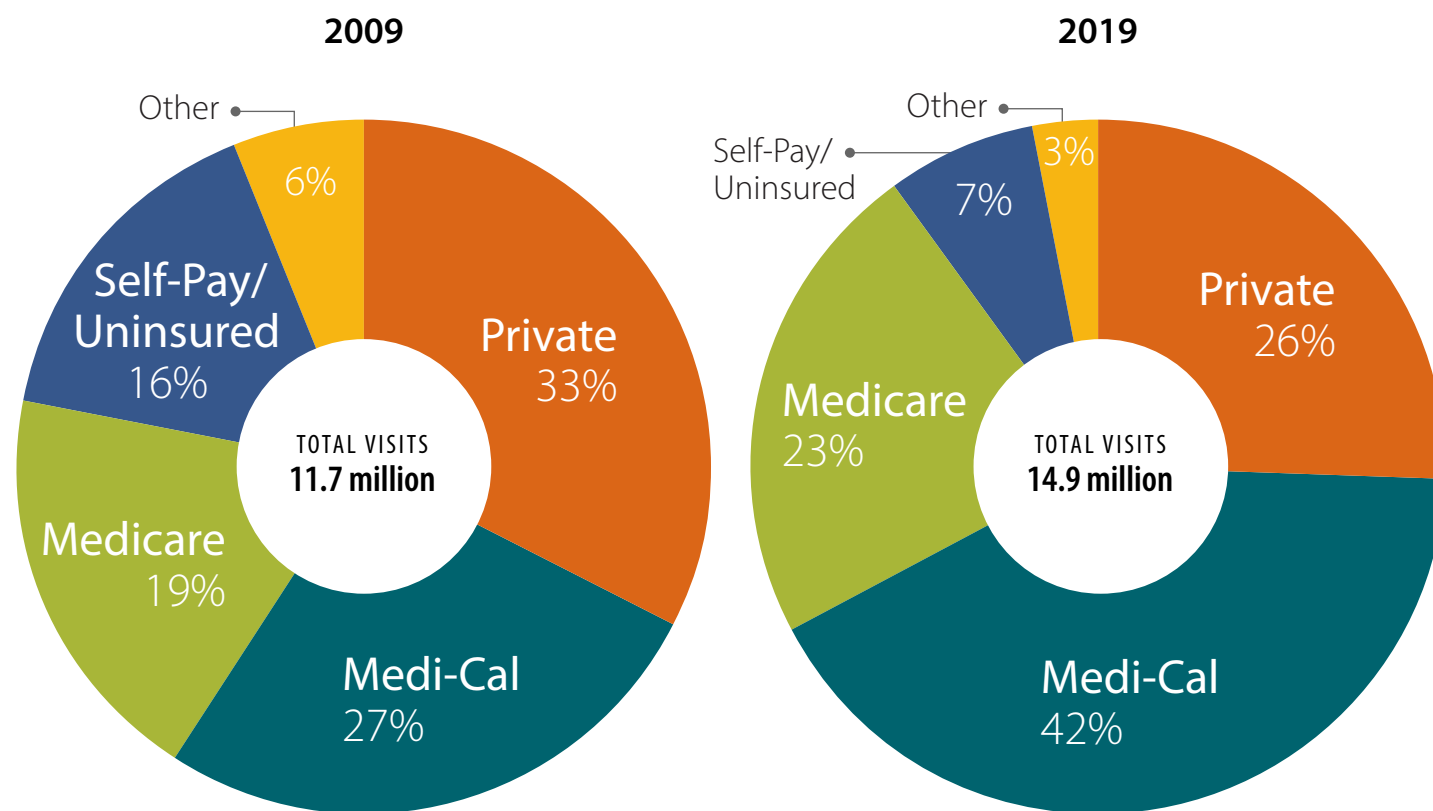
## California Emergency Departments

Visits

In 2019, there were nearly 1,800 visits per treatment station, or about five visits per day.

# Emergency Department Visits, by Expected Payer

## California, 2009 and 2019

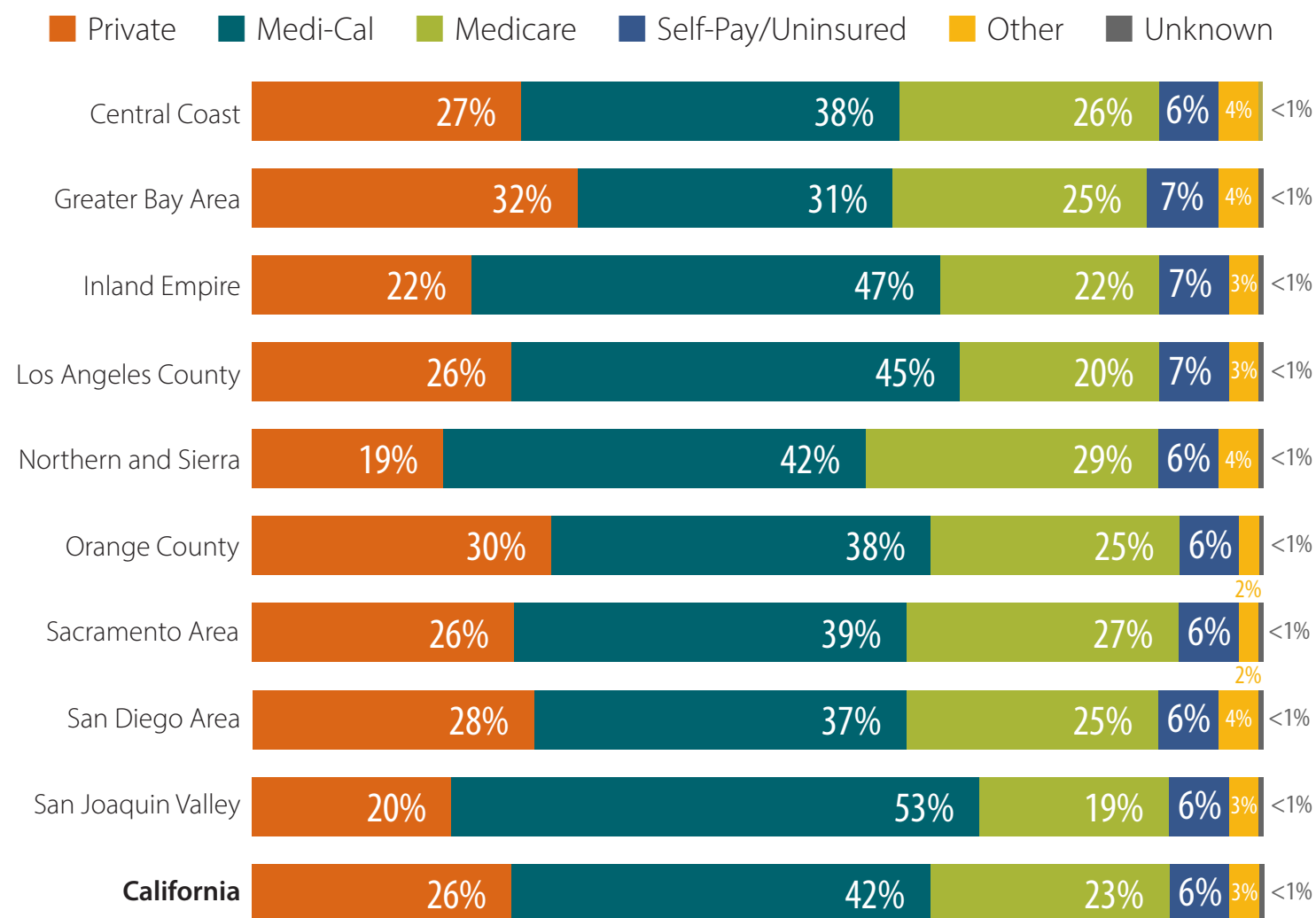


In 2019, Medi-Cal was the expected payer for 42% of emergency department visits, up from 27% in 2009. During this period, enrollment in the Medi-Cal program increased by about 6 million, or 90% (not shown).

Note: Segments may not total 100% due to rounding. *Medicare* includes Medicare Parts A, B, and Health Maintenance Organization (HMO) Medicare Risk. *Medi-Cal* is the California Medicaid program. *Private coverage* includes PPO, POS, EPO, Automobile Medical, Blue Cross/Blue Shield, commercial insurance companies, and health maintenance organizations. *Self-pay* includes self-pay, county indigent programs, and other indigent programs. *Other payer* includes other nonfederal programs, Champus (Tricare), disability, other federal programs, Title V, Veterans Affairs plans, workers compensation, and other. *Unknown* includes invalid, blank, or unknown payer.

Sources: 2019 *Hospital Emergency Department - Characteristics by Facility (Pivot Profile)*, California Health and Human Services Agency (CHHS); and 2009 *Hospital Emergency Department - Characteristics by Facility (Pivot Profile)*, CHHS.

# Emergency Department Visits, by Expected Payer and Region California, 2019



Notes: Segments may not total 100% due to rounding. *Medicare* includes Medicare Parts A, B, and Health Maintenance Organization (HMO) Medicare Risk. *Medi-Cal* is the California Medicaid program. *Private coverage* includes PPO, POS, EPO, Automobile Medical, Blue Cross/Blue Shield, commercial insurance companies, and health maintenance organizations. *Self-pay* includes self-pay, county indigent programs, and other indigent programs. *Other payer* includes other nonfederal programs, Champus (Tricare), disability, other federal programs, Title V, Veterans Affairs plans, workers compensation, and other. *Unknown* includes invalid, blank, or unknown payer.

Source: 2019 Hospital Emergency Department - Characteristics by Facility (Pivot Profile), California Health and Human Services Agency.

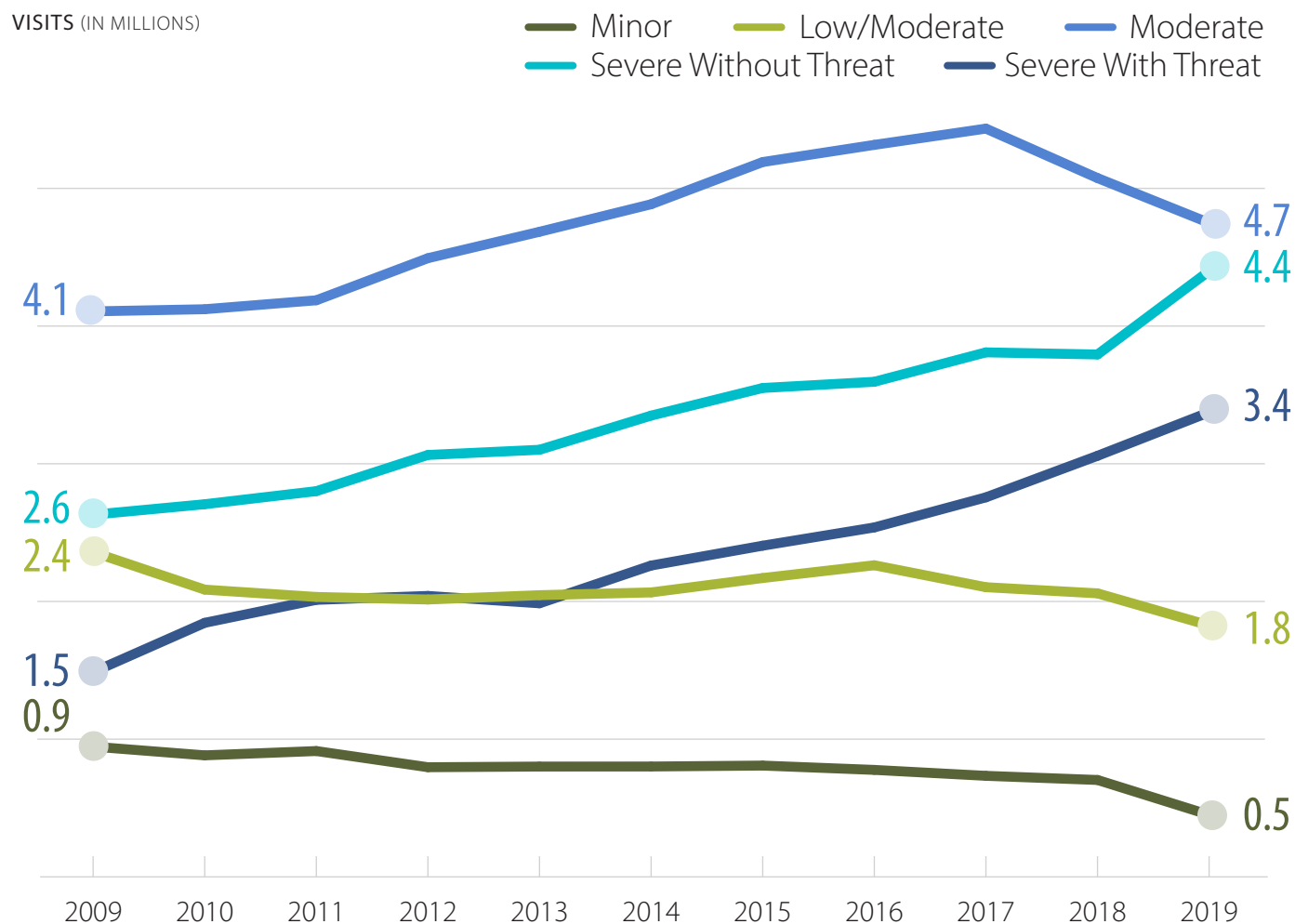
## California Emergency Departments Visits

The payer mix of emergency department visits varied by region. Medi-Cal was the expected payer for approximately half of ED visits in the Inland Empire, Los Angeles County, and the San Joaquin Valley. Nearly 60% of the population covered by Medi-Cal were in the three regions.

# Emergency Department Visits, by Acuity Level

## California, 2009 to 2019

VISITS (IN MILLIONS)



Notes: Emergency department visits are categorized based on type of history/examination and medical decisionmaking required. A *minor* visit requires a problem-focused history/examination and straightforward medical decisionmaking. A *low/moderate* visit requires expanded problem-focused history/examination and medical decisionmaking of low complexity. A *moderate* visit requires expanded problem-focused history/examination and medical decisionmaking of moderate complexity. A *severe without threat* visit requires a detailed history/examination and medical decisionmaking of moderate complexity. A *severe with threat* visit requires a comprehensive history/examination and medical decisionmaking of high complexity. Excludes visits with unknown/unreported severity.

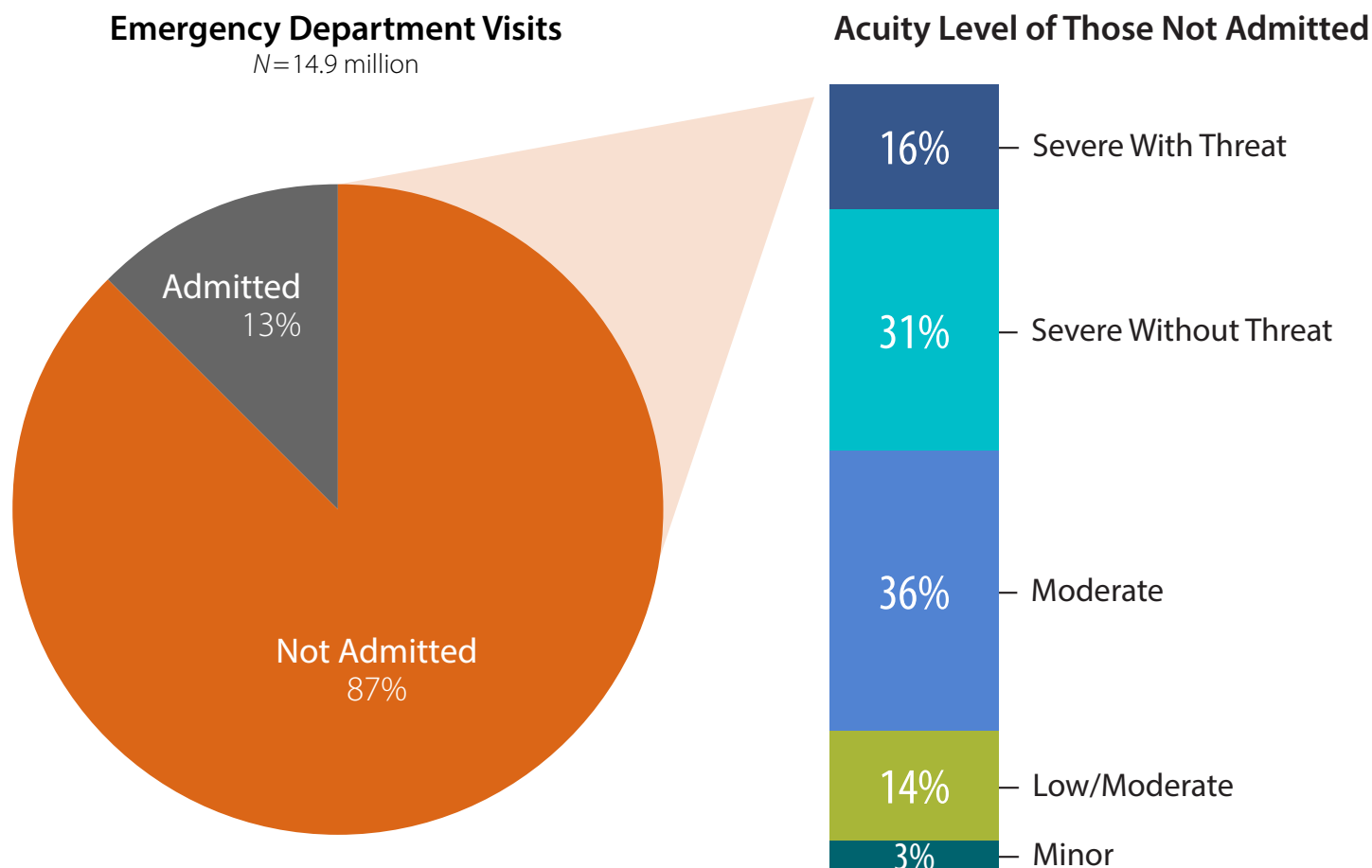
Source: *Calendar Year Hospital Utilization Pivot Table* (2009–19), California Health and Human Services Agency.

### California Emergency Departments

#### Visits

All emergency department visits are classified by acuity level, from "minor" to "severe with threat." The percentage of visits classified as "severe with threat" increased from 13% in 2009 to 23% in 2019. However, the percentage of these "severe with threat" visits that led to admissions decreased over time, from 57% in 2009 to 40% in 2019 (not shown).

# Emergency Department Visits, by Admit Status and Acuity Level of Those Not Admitted, California, 2019



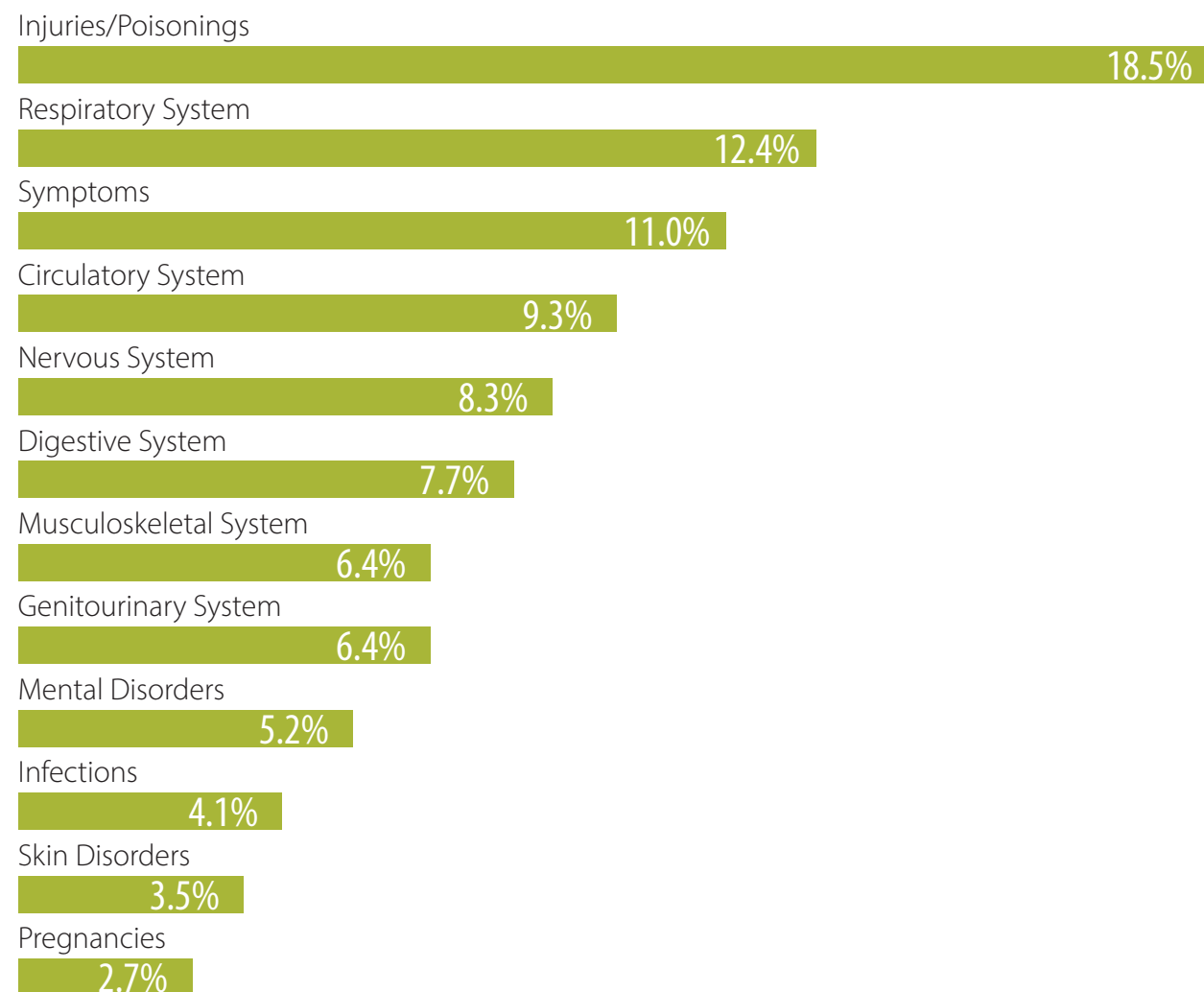
The majority of emergency department visits did not result in a hospital admission. One in six visits for patients not admitted were for conditions severe enough to be life-threatening, and an additional one in three visits were for severe conditions without threat (e.g., an elderly patient who fell and was unable to walk).

Notes: Emergency department visits are categorized based on type of history/examination and medical decisionmaking required. A *minor* visit requires a problem-focused history/examination and straightforward medical decisionmaking. A *low/moderate* visit requires expanded problem-focused history/examination and medical decisionmaking of low complexity. A *moderate* visit requires expanded problem-focused history/examination and medical decisionmaking of moderate complexity. A *severe without threat* visit requires a detailed history/examination and medical decisionmaking of moderate complexity. A *severe with threat* visit requires a comprehensive history/examination and medical decisionmaking of high complexity. Excludes visits with unknown/unreported severity.

Source: 2019 Calendar Year Hospital Utilization Pivot Table, California Health and Human Services Agency.

# Emergency Department Visits, by Diagnosis

## California, 2019



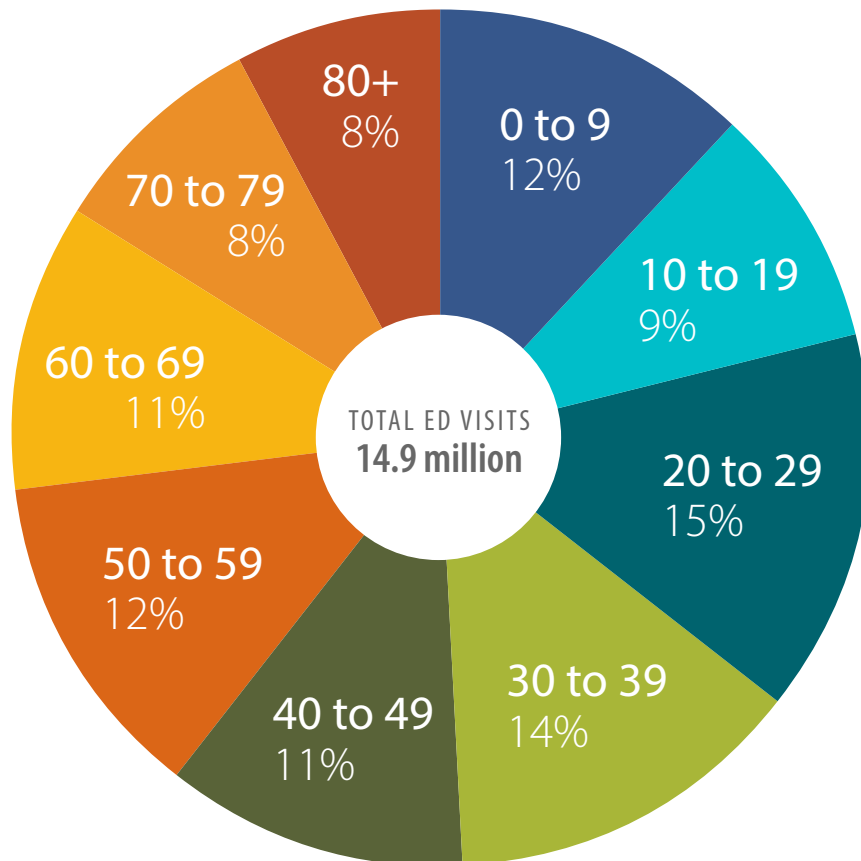
Note: Endocrine diseases (2.2%), residual codes (1.1%), neoplasms (0.6%), blood disorders (0.5%), perinatal disorders (0.3%), congenital anomalies (0.0%), and no assigned diagnosis (0.0%) are not shown.

Source: 2019 Hospital Emergency Department - Characteristics by Facility (Pivot Profile), California Health and Human Services Agency.

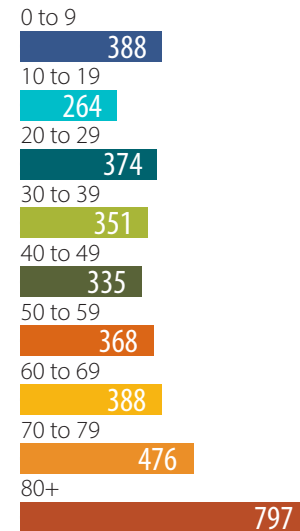
Injuries and poisonings, which include drug overdoses, accounted for nearly one in five emergency department visits in 2019.

# Emergency Department Visits, by Age

## California, 2019



### VISITS PER 1,000 POPULATION



### California Emergency Departments

#### Visits

The percentage of emergency visits in 2019 were relatively the same for all age groups. However, those 80 and older have the highest visits per population.

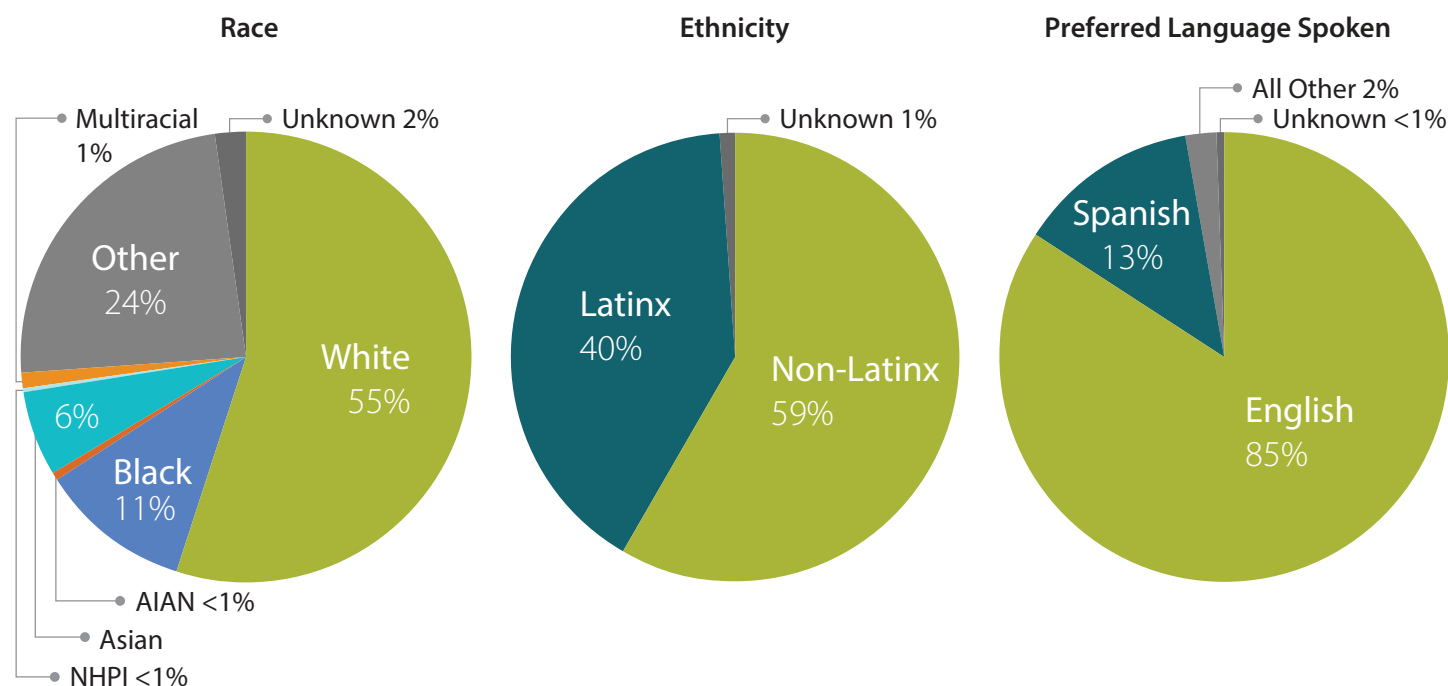
Notes: The age was unknown for 182 visits. Segments may not total 100% due to rounding.

Source: 2019 Hospital Emergency Department - Characteristics by Facility (Pivot Profile), California Health and Human Services Agency.

# Emergency Department Visits, by Race, Ethnicity, and Preferred Language Spoken, California, 2019

## California Emergency Departments Visits

More than half of emergency department visits were made by White patients. English was the preferred language, spoken by 85% of emergency room patients.

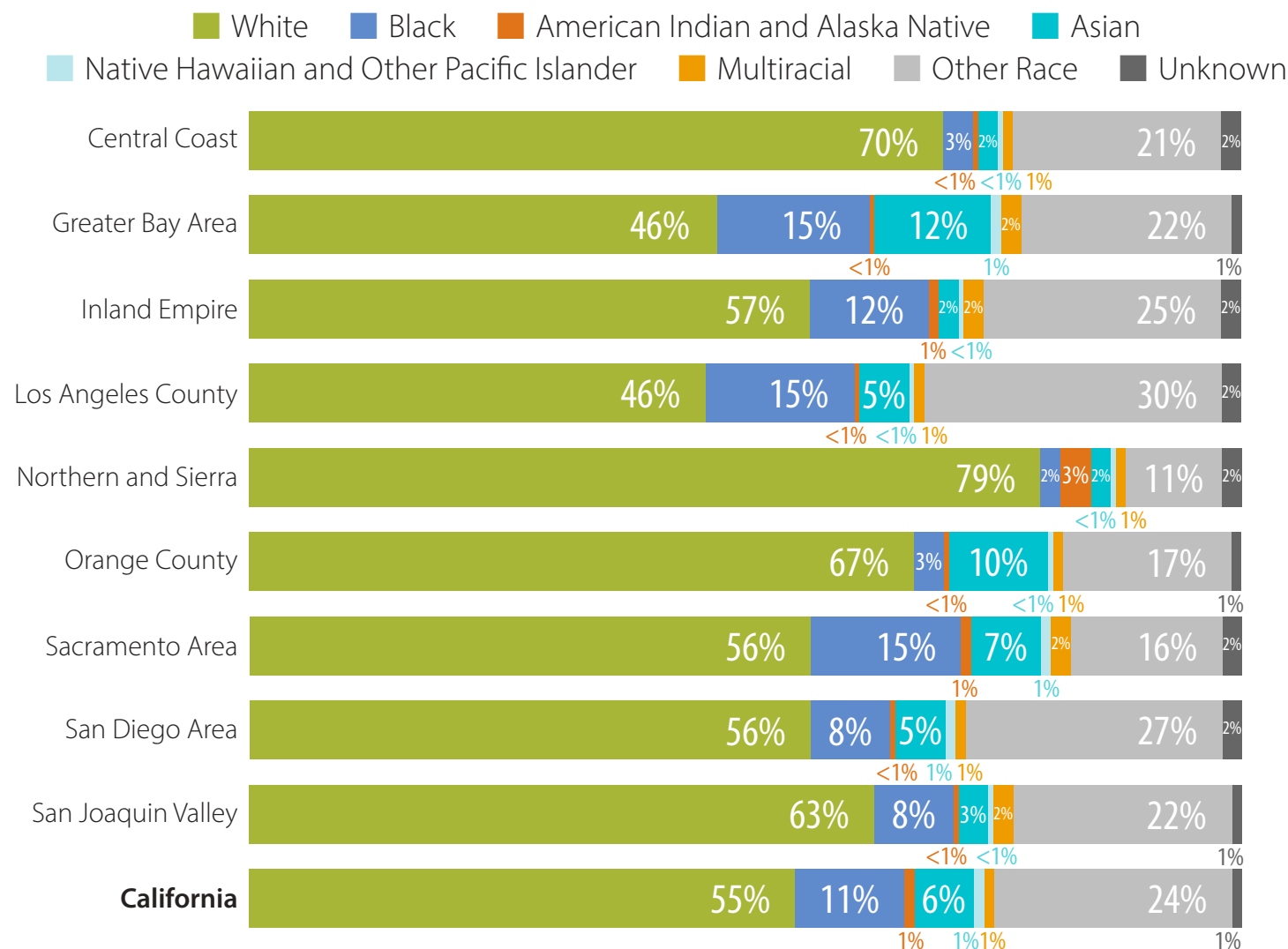


Notes: AIAN is American Indian and Alaska Native; NHPI is Native Hawaiian and Other Pacific Islander. Source uses Asian, Black or African American, and Hispanic.

Source: 2019 Hospital Emergency Department - Characteristics by Facility (Pivot Profile), California Health and Human Services Agency.



# Emergency Department Visits, by Race and Region, California, 2019



## California Emergency Departments Visits

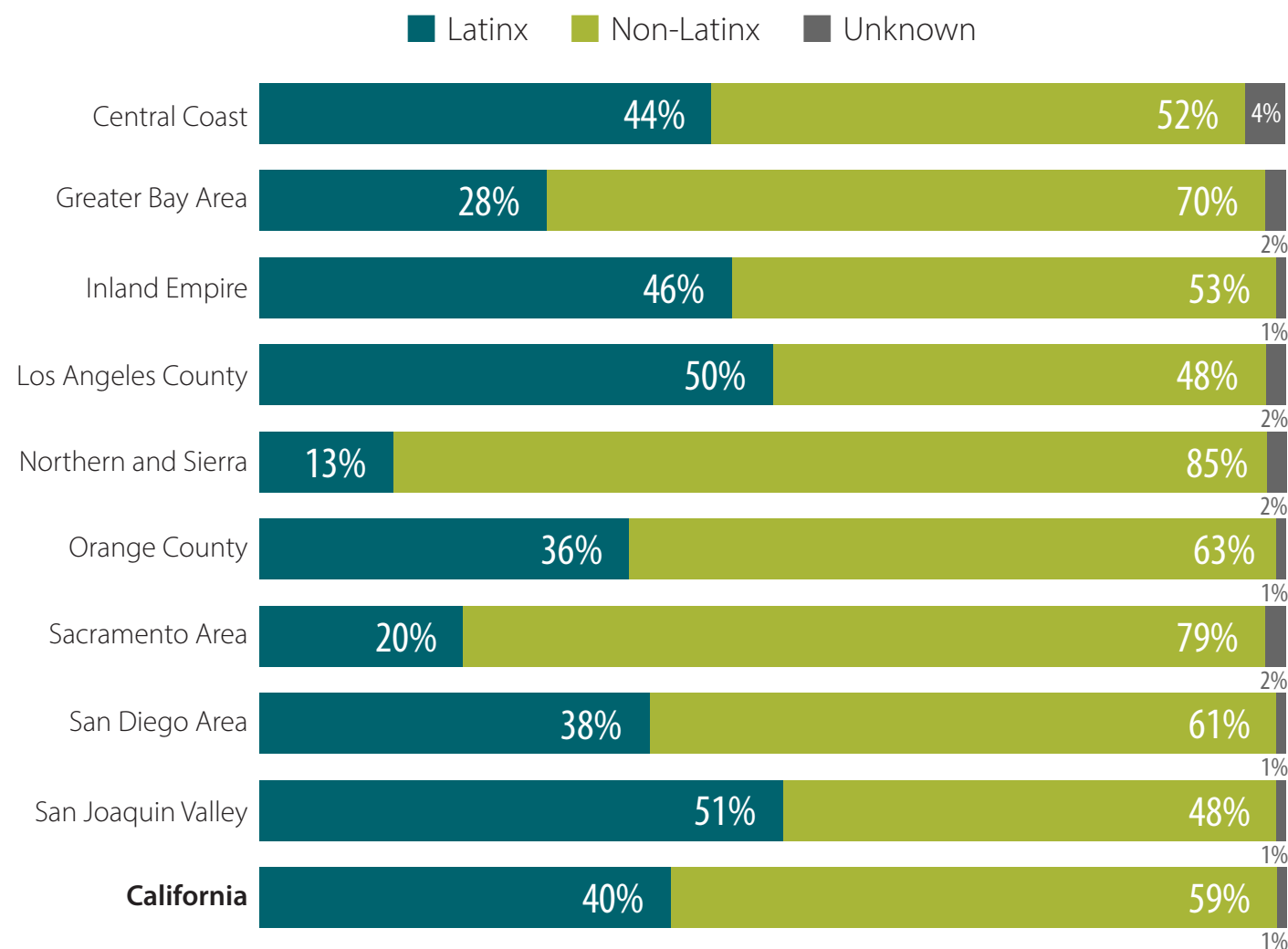
Emergency department visits for different racial groups varied by region.

Note: Source uses Asian, Black or African American, and Hispanic.

Source: 2019 Hospital Emergency Department - Characteristics by Facility (Pivot Profile), California Health and Human Services Agency.

# Emergency Department Visits, by Ethnicity and Region

## California, 2019

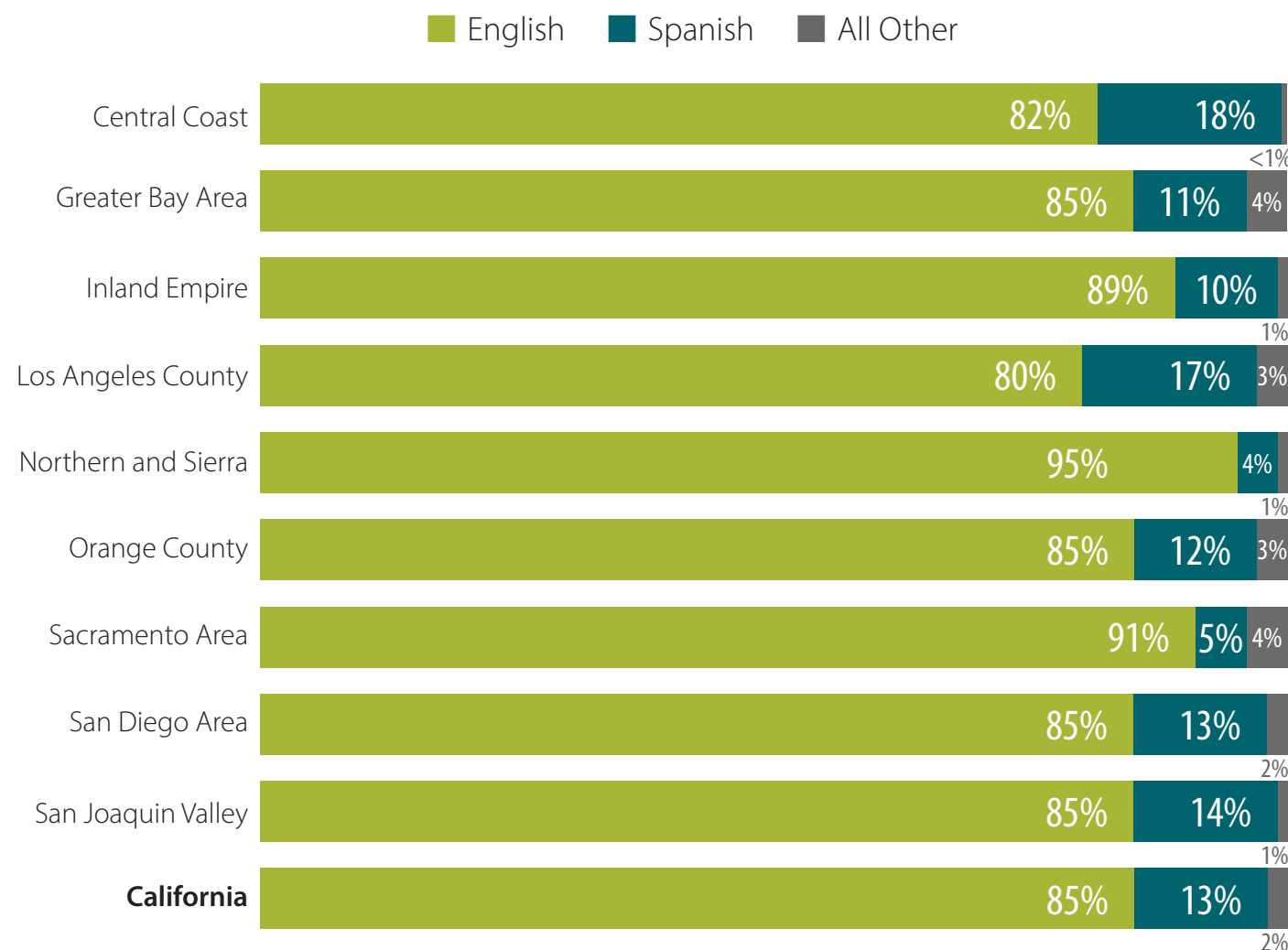


### California Emergency Departments Visits

In Los Angeles County and the San Joaquin Valley, one of every two patients that had an emergency department visit was Latinx.

Source: 2019 Hospital Emergency Department - Characteristics by Facility (Pivot Profile), California Health and Human Services Agency.

# Emergency Department Visits, by Preferred Language Spoken and Region, California, 2019



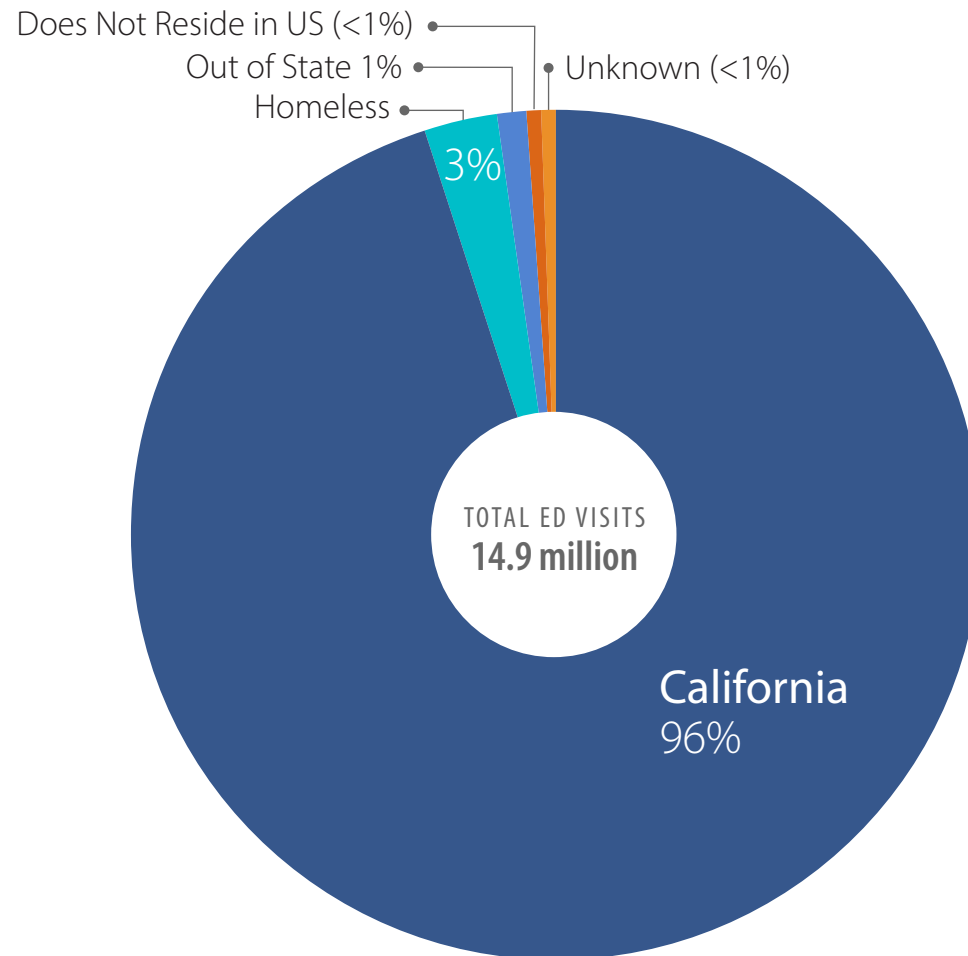
## California Emergency Departments Visits

In Los Angeles County and the Central Coast region, Spanish was the preferred spoken language of nearly one in five patients who had an emergency department visit.

Source: 2019 Hospital Emergency Department - Characteristics by Facility (Pivot Profile), California Health and Human Services Agency.

# Emergency Department Visits, by Residence

## California, 2019

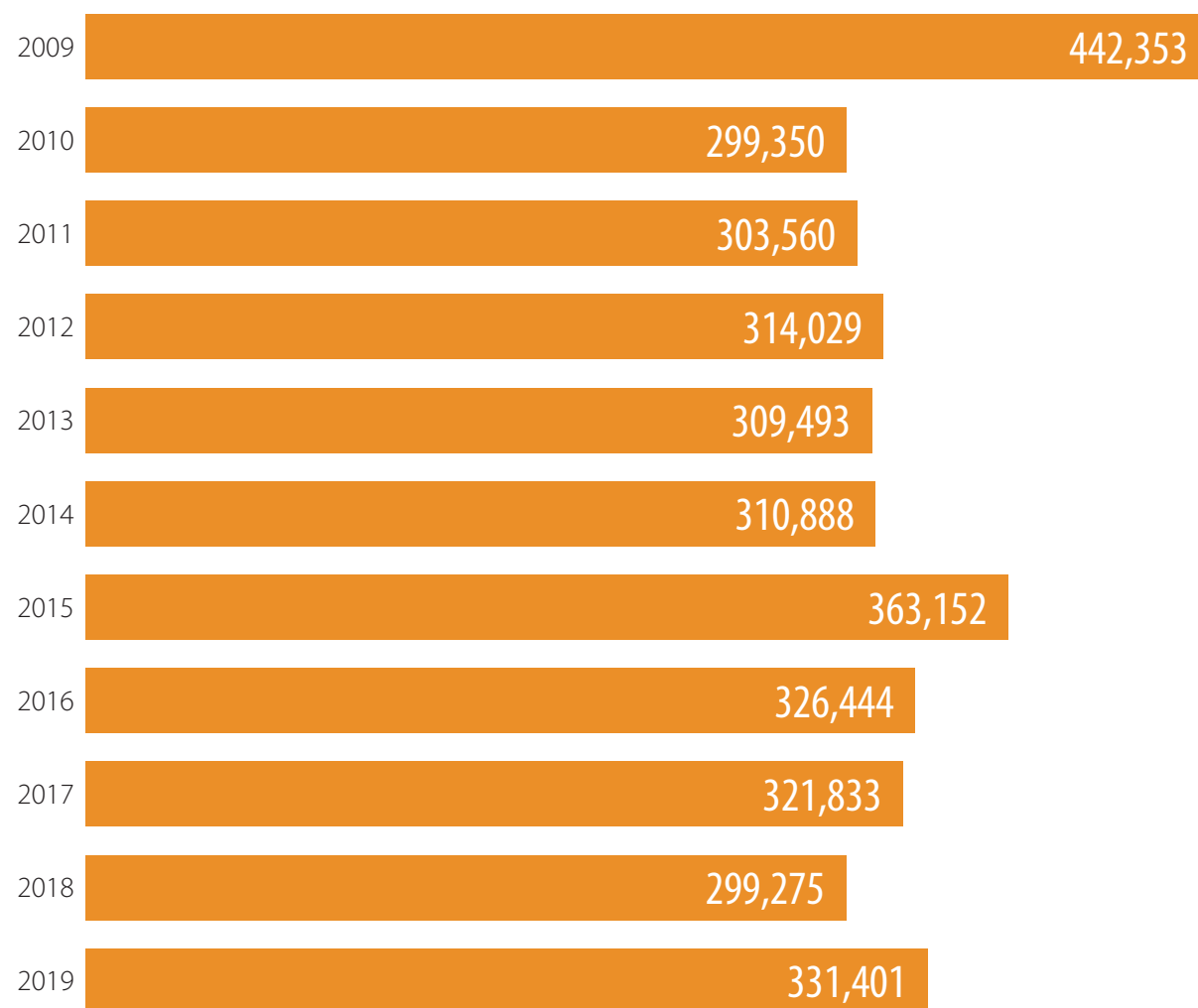


### California Emergency Departments Visits

Most patients with an emergency department (ED) visit reside in California. Patients experiencing homelessness accounted for 3% of ED visits.

Source: 2019 Hospital Emergency Department - Characteristics by Facility (Pivot Profile), California Health and Human Services Agency.

# Emergency Department Visits from Patients Who Left Without Being Seen, California, 2009 to 2019



Source: *Calendar Year Hospital Utilization Pivot Table* (2009-19), California Health and Human Services Agency.

## California Emergency Departments Visits

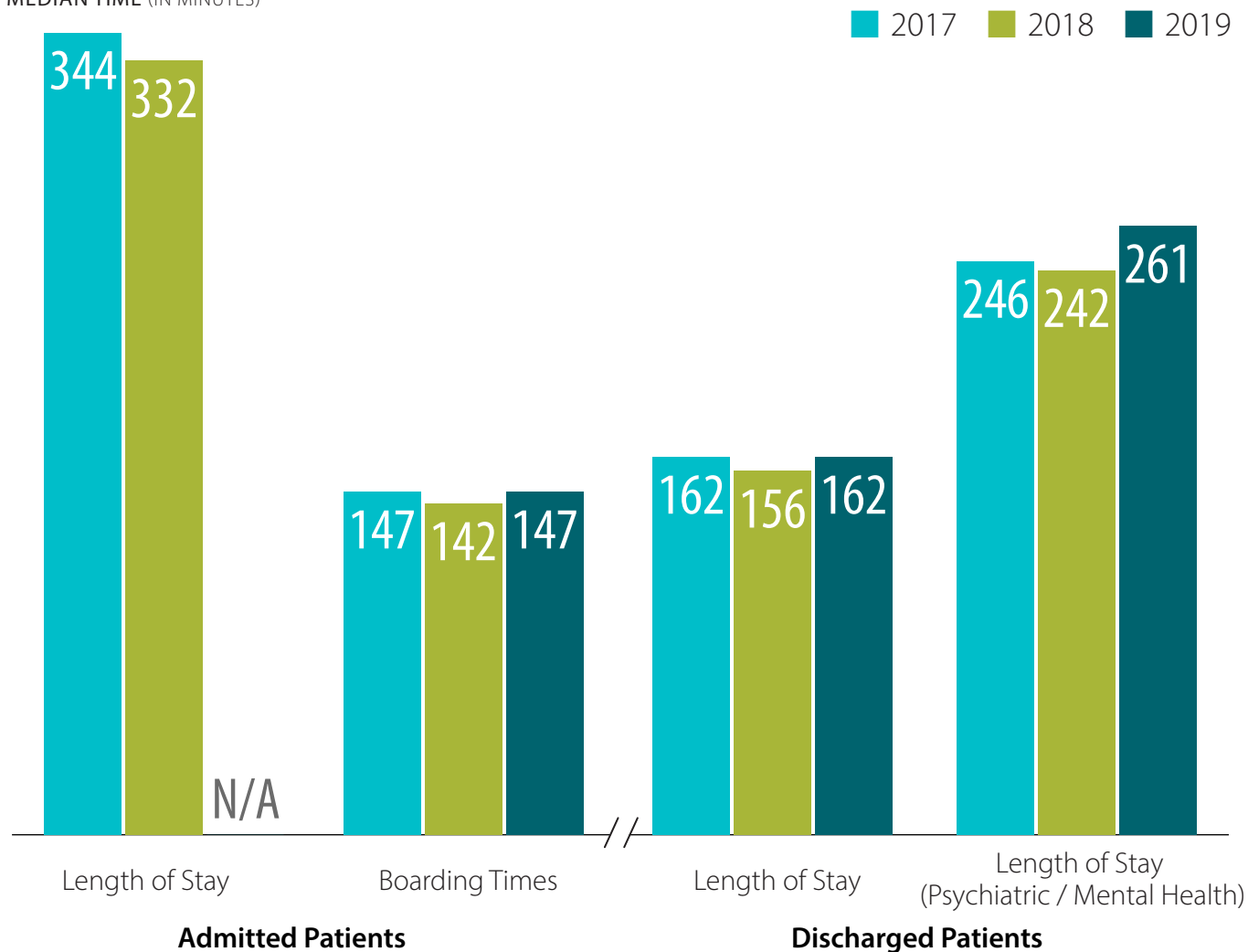
In 2019, 331,401 patients registered in the emergency department (ED) but left before being treated by an emergency physician. EDs that have high percentages of patients who leave without being seen may not have the staff or other resources to provide timely and effective emergency care. Patients who leave the ED without being seen may be seriously ill and may be at higher risk for poor health outcomes.\*

\* Source: "Timely & Effective Care: Emergency Department Care," Centers for Medicare & Medicaid Services.

# Emergency Department Wait Times

## California, 2017 to 2019

MEDIAN TIME (IN MINUTES)



Sources: "Timely and Effective Care - State" (2017–19), Centers for Medicare & Medicaid Services.

### California Emergency Departments

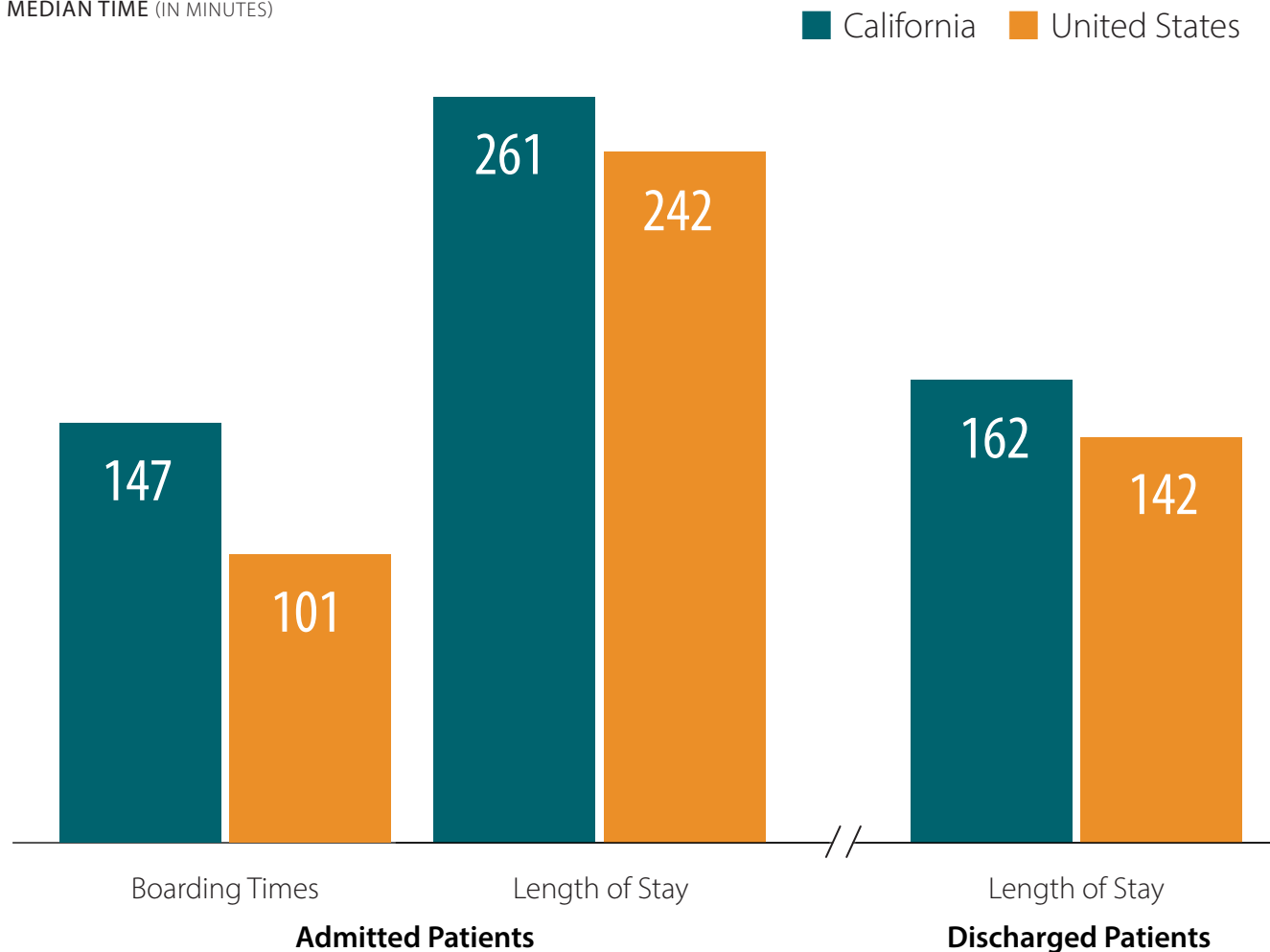
#### Wait Times

Long waits in an emergency department (ED) may be a sign that the ED is overcrowded or understaffed, or that there is a lack of available beds. In 2019, the median stay for patients that were sent home was nearly three hours. However, for those patients with psychiatric / mental health conditions, the median stay was more than four hours.

# Emergency Department Wait Times

## California vs. United States, 2019

MEDIAN TIME (IN MINUTES)



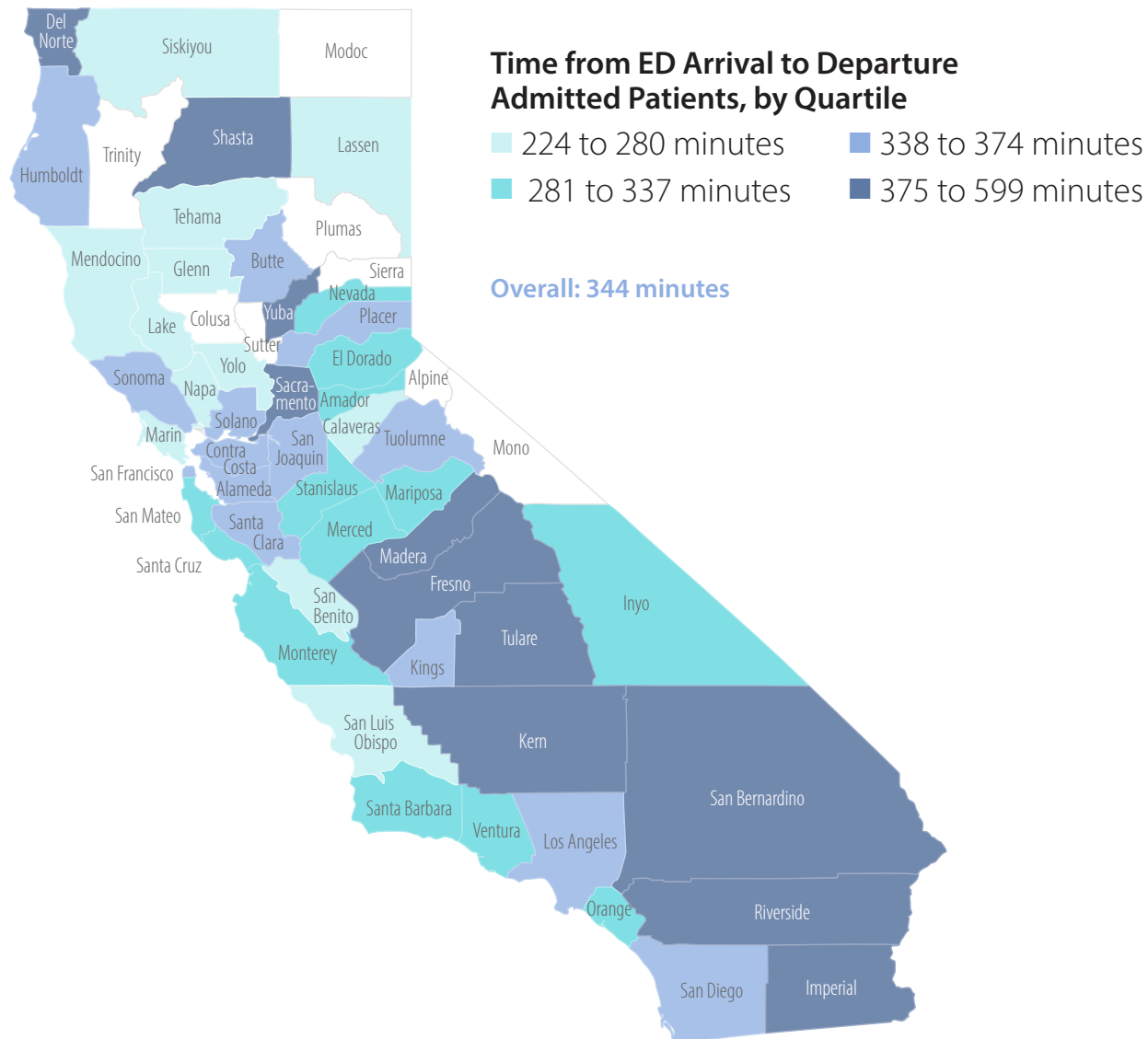
### California Emergency Departments

#### Wait Times

In 2019 the median boarding time for California patients admitted from the emergency department, which is the time the physician decides to admit the patient as an inpatient until the time the patient is able to leave for their inpatient room, was 46 minutes longer than the national average.

Sources: "Timely and Effective Care - State" (2019), Centers for Medicare & Medicaid Services (CMS); and "Timely and Effective Care - National" (2019), CMS.

# Emergency Department Wait Times, Admitted Patients California, 2017



## California Emergency Departments Wait Times

The amount of time patients spent in the emergency department before being admitted varied by county. The longest median wait time was in Fresno County (10 hours), while Calaveras County had the shortest (almost 4 hours).

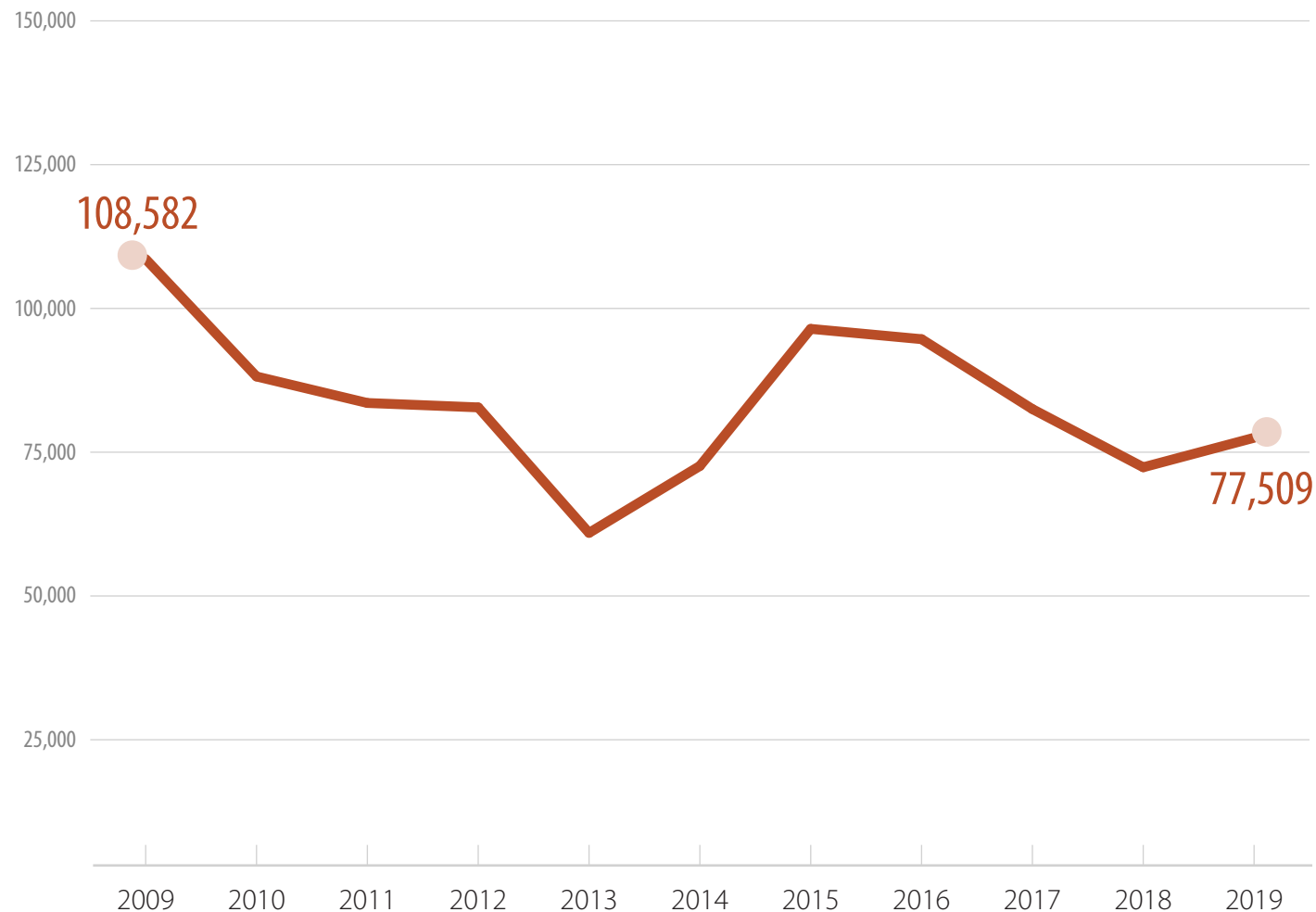
Source: "Timely and Effective Care - Hospital" (2017), Centers for Medicare & Medicaid Services.



# Ambulance Diversion Hours

## California, 2009 to 2019

TOTAL NUMBER OF HOURS EDs CLOSED TO AMBULANCES



Source: *Calendar Year Hospital Utilization Pivot Table* (2009-2019), California Health and Human Services Agency.

### California Emergency Departments

#### Ambulance Diversion

Ambulance diversion occurs when a hospital redirects ambulances to nearby hospitals. Overcrowding in the emergency department (ED) is the most common reason an ambulance is diverted. Ambulance diversion can have many negative consequences, from increasing ambulance turnaround time, to reducing patient quality of care, to negatively impacting ED capacity at nearby hospitals. Diversion hours in California decreased 29% between 2009 and 2019.

# Ambulance Diversion Hours, by Region

## California, 2009 vs. 2019

### TOTAL NUMBER OF HOURS EMERGENCY DEPARTMENTS CLOSED TO AMBULANCES

	2009	2019	CHANGE
Central Coast	3,138	2,236	-29%
Greater Bay Area	10,804	12,632	17%
Inland Empire	38	317	734%
Los Angeles County	65,345	49,896	-24%
Northern and Sierra	135	0	-100%
Orange County	6,072	5,147	-15%
Sacramento Area	1,752	30	-98%
San Diego Area	20,356	7,246	-64%
San Joaquin Valley	942	5	-99%
<b>California</b>	<b>108,582</b>	<b>77,509</b>	<b>-29%</b>

### California Emergency Departments

#### Ambulance Diversion

Ambulance diversion hours varied by region. The variation may be due, in part, to individual hospital and local Emergency Medical Services agencies diversion policies. The Inland Empire and Greater Bay Area experienced an increase in ambulance diversion hours, or hours when emergency departments did not accept ambulances, between 2009 and 2019. All other regions experienced a decrease in ambulance diversion hours over the same period.

Sources: 2019 Calendar Year Hospital Utilization Pivot Table, California Health and Human Services Agency (CHHS); and 2009 Calendar Year Hospital Utilization Pivot Table, CHHS.

# Methodology

The analyses in this report rely primarily on data obtained from reports submitted by licensed hospitals to California's Department of Health Care Access and Information (HCAI), which conducts annual standardized surveys required from all hospitals in California. These include patient discharge data, emergency department (ED) data, and hospital annual utilization data. Data were used to evaluate ED capacity and utilization trends in California hospitals from 2009 to 2019. For the utilization data, all general acute care hospitals with an ED (standby, basic, and comprehensive) that were operational at any time in the year during the study period were included.

## California Emergency Departments

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### ABOUT THIS SERIES

The California Health Care Almanac is an online clearinghouse for data and analysis examining the state's health care system. It focuses on issues of quality, affordability, insurance coverage and the uninsured, and the financial health of the system with the goal of supporting thoughtful planning and effective decisionmaking. Learn more at [www.chcf.org/almanac](http://www.chcf.org/almanac).

### AUTHOR

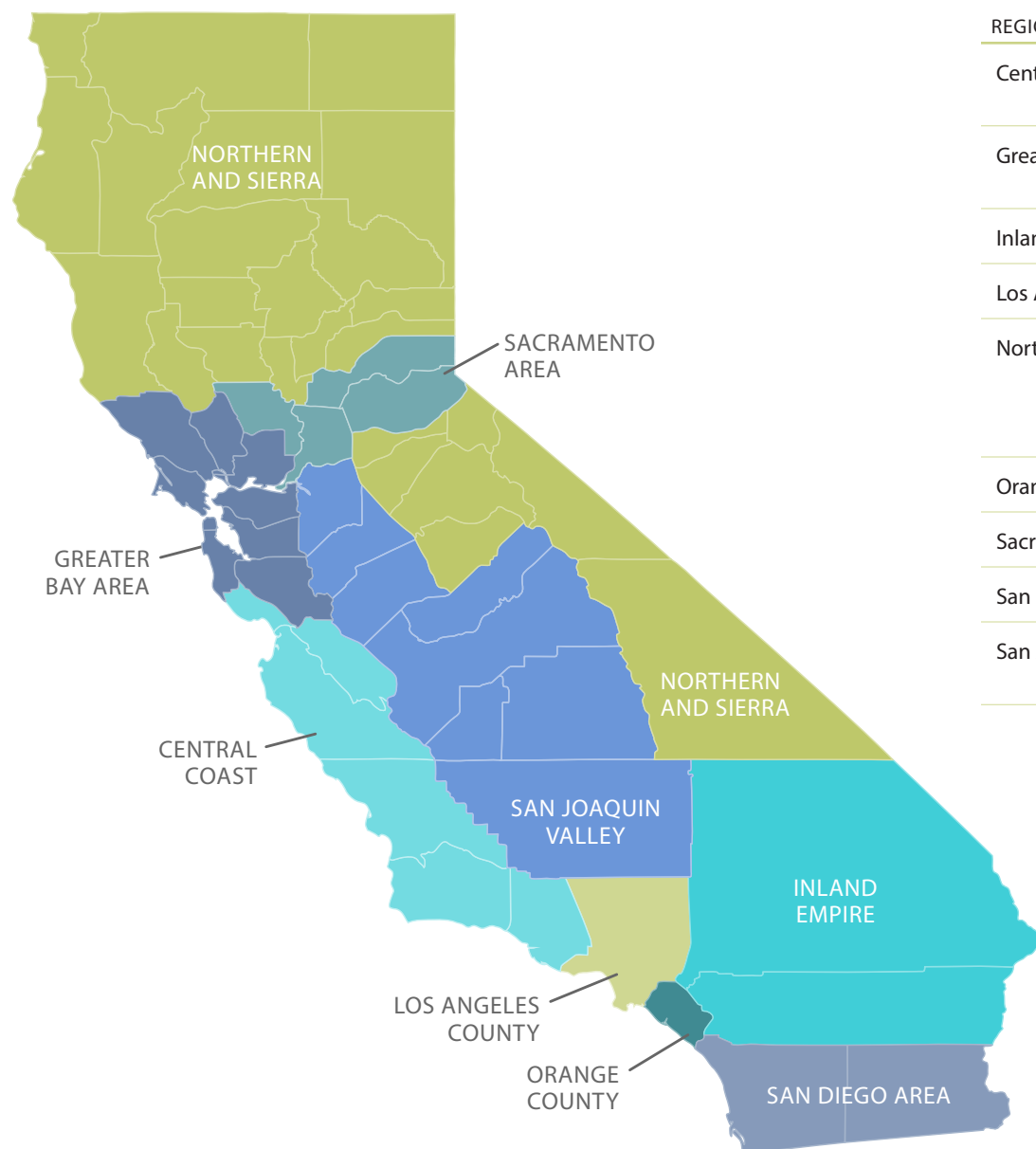
Renee Y. Hsia, MD, MSc, is professor of emergency medicine and health policy at the University of California, San Francisco.

### FOR MORE INFORMATION



California Health Care Foundation  
1438 Webster Street, Suite 400  
Oakland, CA 94612  
510.238.1040  
[www.chcf.org](http://www.chcf.org)

# Appendix: California Counties Included in Regions



REGION	COUNTIES
Central Coast	Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz, Ventura
Greater Bay Area	Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma
Inland Empire	Riverside, San Bernardino
Los Angeles County	Los Angeles
Northern and Sierra	Alpine, Amador, Butte, Calaveras, Colusa, Del Norte, Glenn, Humboldt, Inyo, Lake, Lassen, Mariposa, Mendocino, Modoc, Mono, Nevada, Plumas, Shasta, Sierra, Siskiyou, Sutter, Tehama, Trinity, Tuolumne, Yuba
Orange County	Orange
Sacramento Area	El Dorado, Placer, Sacramento, Yolo
San Diego Area	Imperial, San Diego
San Joaquin Valley	Fresno, Kern, Kings, Madera, Merced, San Joaquin, Stanislaus, Tulare