California Health Policy Strategies, L.L.C.

Data Brief

Substance Use Disorders in California Hospital-Based Encounters Emergency Department and Inpatient Trends (2020–2024)

October 2026

Key Findings:

This data brief examines California hospital utilization related to substance use from 2020–2024, drawing on encounter-level data reported by the Department of Health Care Access and Information (HCAI). The analysis highlights trends in encounter volume, patient demographics, substance types, and payer mix across emergency department (ED) and inpatient settings.

In 2024:

- **1.1 million+** hospital encounters involved a diagnosed SUD, or **7%** of all hospital-based encounters statewide.
- Those encounters involved roughly **638,000** unique individuals receiving SUD-related care in the ED or inpatient settings.
- About **480,000** of these 1.1 million encounters resulted in admission. SUD patients were admitted at nearly twice the rate of all hospital patients (42% vs. 23%).
- About **280,000** (23%) of these 1.1 million encounters had SUD as the primary diagnosis, and about **890,000** (77%) had it as a secondary diagnosis.
- **Alcohol (37%)**, **stimulants (20%)**, **cannabis (17%)**, and **opioids (16%)** together accounted for 90% of SUD diagnoses.
- **Medi-Cal** financed **50% of inpatient** and **55% of ED SUD encounters.**

Trends, 2020–2024:

- **Total volume remained remarkably constant:** Encounter volume rose 2% and unique patient volume was unchanged (down 0.2%)
- **Uninsured encounters declined 20.4%,** while Medi-Cal encounters rose 5.1%.,
- Total **alcohol diagnoses** made **rose by 14%,** while cannabis and stimulants diagnosis volume fell. Opioid diagnoses volume remained stable.

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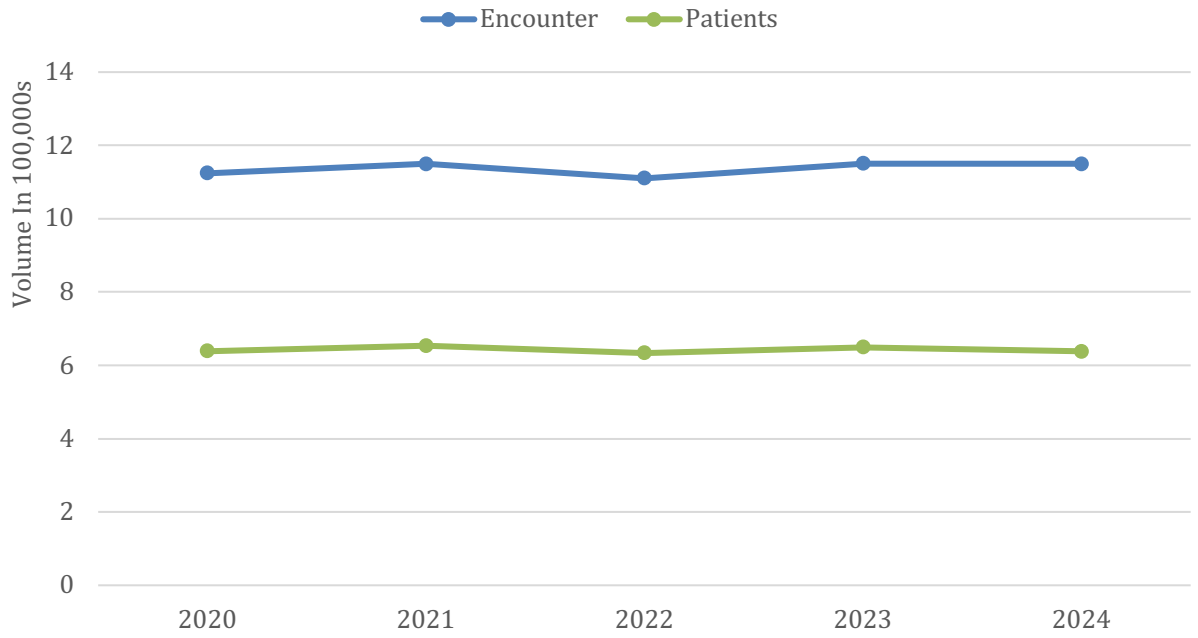
1. Introduction

Substance use disorders remain a persistent driver of hospital utilization in California. Despite expanded insurance coverage under the Affordable Care Act, increased availability of medication-assisted treatment, and substantial state investments in behavioral health infrastructure, hospital-based care related to substance use has not declined meaningfully.

Emergency departments continue to serve as a primary point of access for individuals experiencing acute substance-related crises, including overdose, intoxication, withdrawal, and co-occurring psychiatric conditions. National surveillance data show increases in drug- and substance-related emergency department visits in recent years, underscoring the ED's ongoing role as a critical entry point for acute SUD-related care (CDC, 2023; SAMHSA, 2023).

2. Utilization Patterns

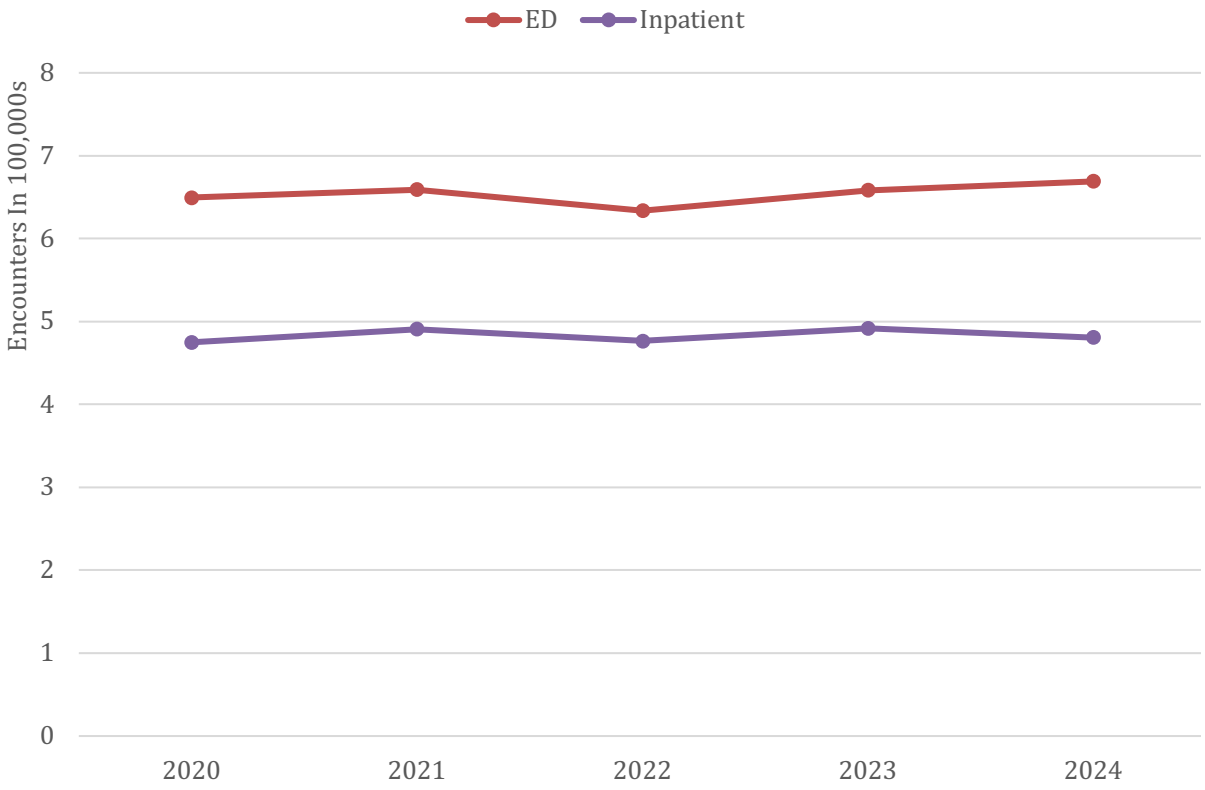
Figure 1. Substance Use Disorder (SUD) Encounter and Patient Volume in ED and Inpatient Settings, 2020–2024



From 2020 through 2024, the annual number of patients with a diagnosed SUD treated in a Californian hospital setting remained remarkably stable at an average of 642,630 patients and year to year range of 20,131. Likewise, the number of encounters involving a patient with an SUD stayed stable at an average of 1,136,882 encounters and a range of

40,060. The average number of yearly encounters for each patient held stable at roughly 1.77.

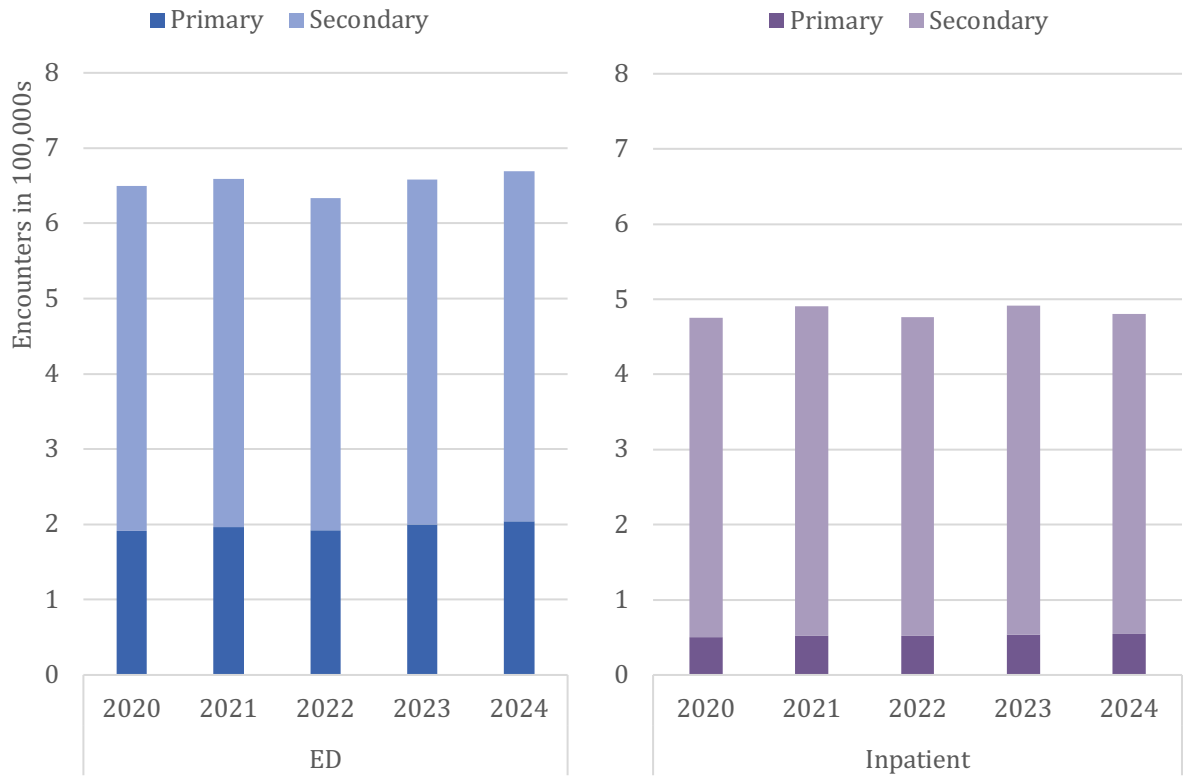
Figure 2. Substance Use Disorder (SUD) Encounter Volume in ED vs. Inpatient Settings, 2020–2024



†Emergency department (ED) and inpatient encounters are reported as mutually exclusive in HCAI data. Encounters in which patients are treated and discharged from the ED are reported as ED encounters. Encounters in which patients are admitted to the hospital—whether through the ED or another point of entry—are reported as inpatient encounters.

During this 5-year period, the majority of SUD-related encounters (approximately 58%) were for patients treated exclusively in the emergency department, while a sizeable minority (approximately 42%) involved patients who were admitted to the hospital (inpatient), often following initial evaluation in the ED. This inpatient share is substantially higher than the proportion of inpatient care among hospital visits overall, which was approximately 23%. The disproportionate use of inpatient care among patients with SUD is consistent with greater clinical severity, medical complexity, and the need for prolonged stabilization compared with non-SUD hospital encounters.

Figure 3. Substance Use Disorder Diagnostic Position (Primary vs. Secondary), ED and Inpatient Settings, 2020-2024



The reported diagnostic position of SUD differed substantially by care setting. In the ED, an average of 30% of SUD-related encounters recorded SUD as a primary diagnosis, compared with 11% of inpatient SUD-related encounters. The share of primary-diagnosis encounters rose slightly in both settings — by roughly 1 percentage point since 2020.

A secondary diagnosis position does not necessarily indicate lower clinical significance: it often means SUD was identified as a contributing factor to a hospitalization initiated for another reason, underscoring the value of universal SUD screening across all hospital-based encounters, not only those where SUD is the primary presenting complaint.

3. Demographic Patterns

†*Patient totals may vary slightly across tables due to missing or unknown demographic information for some encounters.*

Table 1. Distribution of Substance Use Disorder (SUD) Patients by Sex, in Emergency Department and Hospital Settings, 2024

Sex	Patients Presenting with SUD	All Patients	SUD Rate
Female	240,755 [37.8%]	4,150,570 [55.9%]	5.8%
Male	396,906 [62.2%]	3,280,473 [44.1%]	12.1%
Total	637,661 [100.0%]	7,431,043 [100.0%]	8.6%

Men accounted for 62% of patients presenting with an SUD in 2024, despite representing less than half of all hospital encounters statewide. Over 12% of all men who presented to the hospital had an SUD, compared to under 6% of all women. For both sexes, a secondary SUD was far more common than a primary one (81% for women, 78% for men).

Table 2. Distribution of Substance Use Disorder (SUD) Patients by Age in Emergency Department and Hospital Settings, 2024

Age	Patients Presenting with SUD	All Patients	SUD Rate
0 to 18	13,216 [2.1%]	720,679 [9.7%]	1.8%
19 to 39	242,242 [37.9%]	2,297,775 [30.8%]	10.5%
40 to 59	214,801 [33.6%]	1,769,518 [23.7%]	12.1%
60+	169,568 [26.5%]	2,671,381 [35.8%]	6.3%
Total	639,827 [100.0%]	7,459,353 [100.0%]	8.6%

Adults aged 19–39 and 40–59 experienced the highest rates of SUD diagnosis (10.5% and 12.1%, respectively) and together accounted for over three-quarters of all SUD-related encounters. Notably, the 40–59 age group had the highest SUD rate of any age group statewide. Rates were markedly lower among youth (ages 0–18) and adults aged 60 and older.

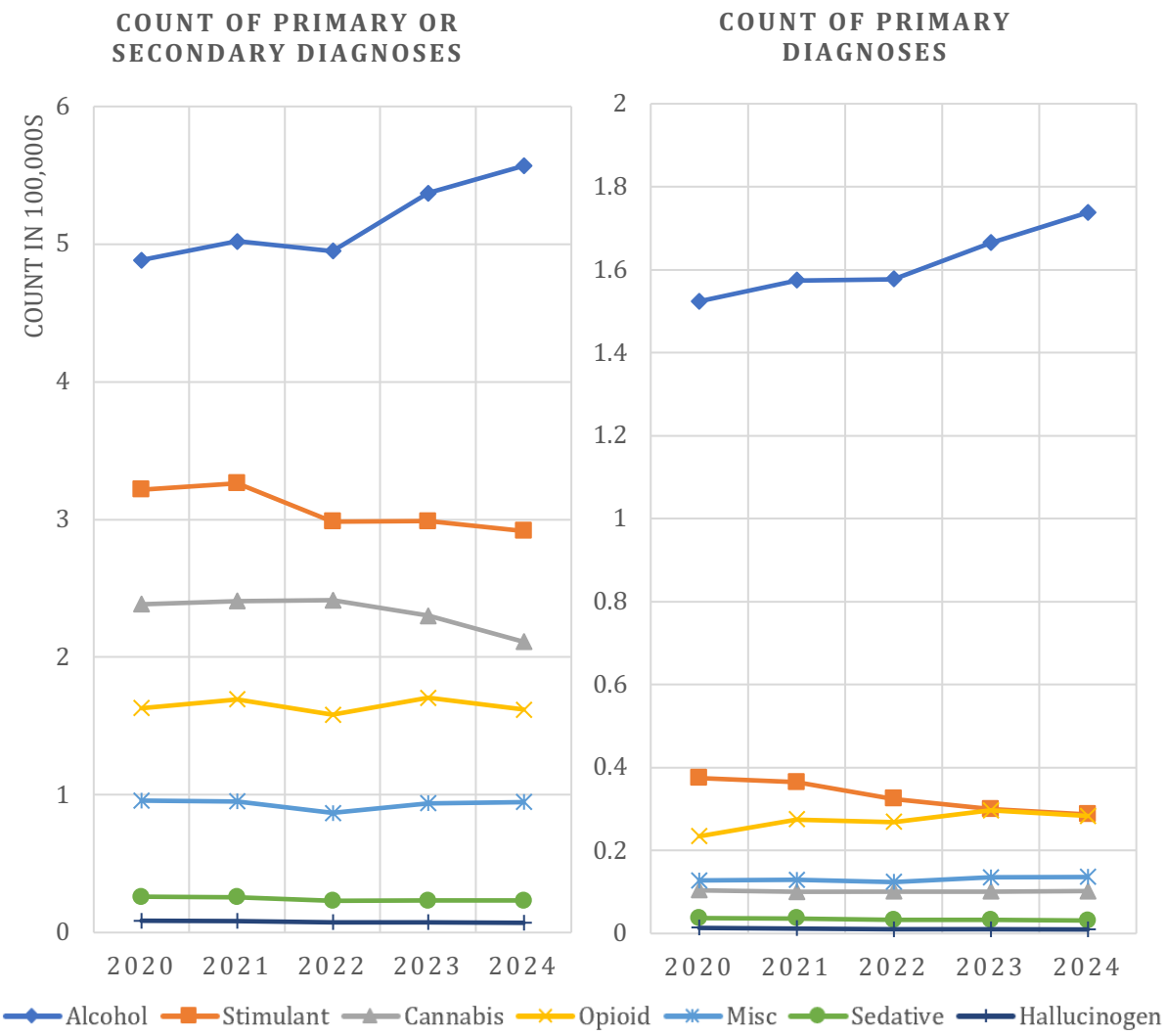
Table 3. Distribution of Substance Use Disorder (SUD) Patients by Race/Ethnicity, in Emergency Department and Hospital Settings, 2024

Race	Patients Presenting with SUD	All Patients	SUD Rate
American Indian/Alaska Native	4,127 [0.6%]	29,246 [0.4%]	14.1%
Asian	18,020 [2.8%]	626,803 [8.3%]	2.9%
Black	80,775 [12.4%]	681,102 [9.0%]	11.9%
Hispanic	215,387 [33.1%]	2,874,213 [38.1%]	7.5%
Multiracial (Non-Hispanic)	9,141 [1.4%]	85,304 [1.1%]	10.7%
Native Hawaiian or Other Pacific Islander	2,242 [0.3%]	47,878 [0.6%]	4.7%
Other Race	28,688 [4.4%]	349,411 [4.6%]	8.2%
White	292,431 [44.9%]	2,848,851 [37.8%]	10.3%
Total	650,811 [100.0%]	7,542,808 [100.0%]	8.6%

Racial/ethnic differences were present, with Asian, and Pacific Islander patients substantially underrepresented and Hispanic patients slightly underrepresented among SUD encounters. American Indian/Alaska Native patients had the highest SUD rate of any racial or ethnic group (14.1%), nearly double the statewide average, followed by Black patients (11.9%) and White patients (10.3%); both groups were overrepresented relative to their share of all hospital encounters.

4. Diagnostic Patterns

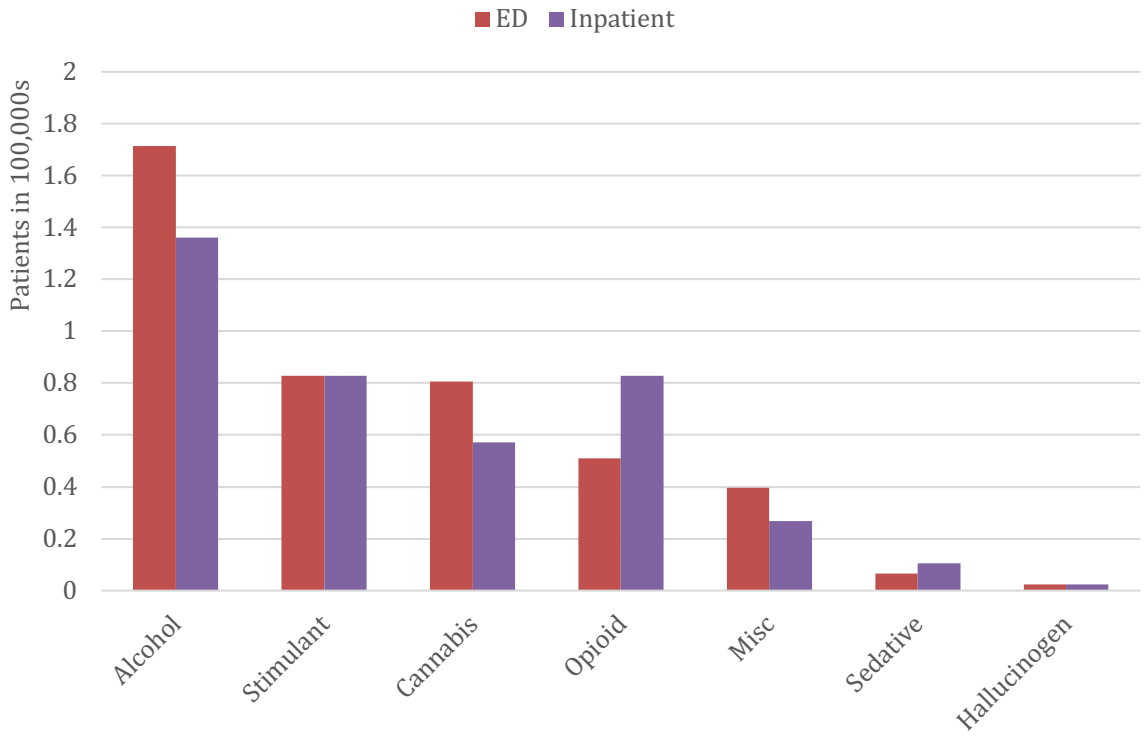
Figure 4. Trend in Diagnosed SUD Types, California Hospital Encounters, 2020–2024



Alcohol-related disorders were the most common SUD diagnoses across all five years, followed by stimulant, cannabis, and opioid disorders. From 2020 to 2024, alcohol's share increased from 32.0% to 36.9%, while cannabis declined from 19.0% to 16.5% and stimulant diagnoses fell from 21.6% to 19.9%. Opioid diagnoses remained stable at 16–17%.

When examining primary diagnoses alone, alcohol-related disorders remained most common, followed by stimulant, opioid, cannabis, and miscellaneous disorders. The overall trends mirrored secondary diagnosis patterns, with one exception: opioid use disorders increased their share of primary diagnoses from 9.7% in 2020 to 10.9% in 2024.

Figure 5. Distribution of Diagnosed SUD Types Emergency Department and Hospital Settings, 2024



† *Because patients may have multiple SUD diagnoses, diagnostic totals exceed the number of SUD-patients.*

Differences in diagnostic distributions between ED and inpatient settings were present, with opioid- and sedative-related disorders more common in inpatient care, while stimulant-related disorders were roughly evenly split between settings.

Relative to national ED surveillance data, California reports a lower share of alcohol-related encounters and a higher share associated with cannabis and stimulants. These differences are consistent with regional patterns, including elevated methamphetamine-related morbidity in Western states and higher rates of cannabis-related hospital presentations following legalization (Hall & Weier, 2015; Jones et al., 2022; NIDA, 2023)

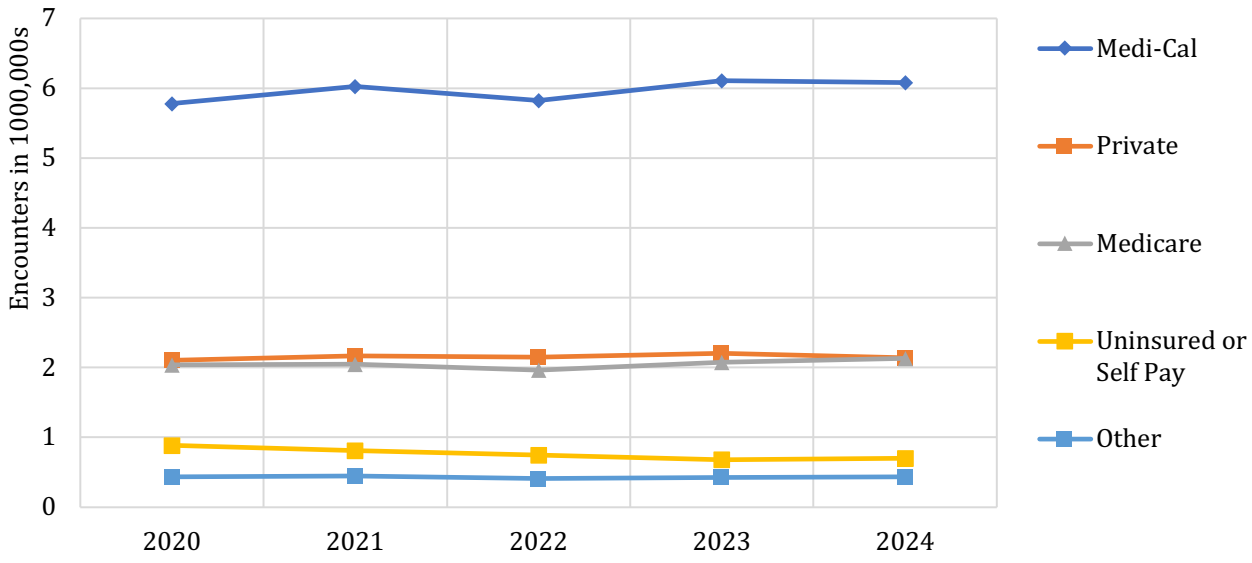
5. Payer Patterns

Table 4. Distribution of Payers for Encounters with an SUD Diagnosis, in Emergency Department and Hospital Settings, 2024

Payer	SUD Encounters	All Encounters	SUD Rate
Medi-Cal	607,704 [52.9%]	7,029,080 [41.4%]	8.6%
Private	214,407 [18.6%]	4,654,444 [27.4%]	4.6%
Medicare	213,235 [18.5%]	4,003,794 [23.6%]	5.3%
Uninsured or Self Pay	70,623 [6.1%]	768,397 [4.5%]	9.2%
Other	43,690 [3.8%]	534,604 [3.1%]	8.2%
Total	1,149,659 [100.0%]	16,990,319 [100.0%]	6.8%

Medi-Cal was the dominant payer for SUD-related care, financing 52.9% of all SUD-related encounters in 2024. Private insurance and Medicare each covered the bulk of the remaining encounters (18.6% and 18.5%, respectively). Encounters covered by private insurance were the least likely of any payer group to involve an SUD diagnosis, while uninsured encounters and those covered by Medi-Cal were the most likely.

Figure 6. Trends in Payer Volume of Encounters with an SUD Diagnosis, in Emergency Department and Hospital Settings, 2020-2024



From 2020 to 2024, encounters covered by insurance increased modestly: 5.1% for Medi-Cal, 4.7% for Medicare, and 1.9% for private plans. Uninsured encounters declined 20.4%, reflecting a broader decrease in uninsured hospital utilization in California during this period.

Table 5. Distribution of Payers for Encounters with an SUD Diagnosis, in Emergency Department vs. Hospital Settings, 2024

Payer	ED	Inpatient	All
Medi-Cal	365,878 [54.7%]	241,826 [50.3%]	607,704 [52.9%]
Private	133,014 [19.9%]	81,393 [16.9%]	214,407 [18.6%]
Medicare	90,124 [13.5%]	123,111 [25.6%]	213,235 [18.5%]
Uninsured or Self Pay	61,101 [9.1%]	9,522 [2.0%]	70,623 [6.1%]
Other	18,901 [2.8%]	24,789 [5.2%]	43,690 [3.8%]
Total	669,018 [100.0%]	480,641 [100.0%]	1,149,659 [100.0%]

Payer mix shifted somewhat by care setting, though Medi-Cal remained the largest payer in both. Notably, SUD encounters covered by Medicare were much more likely to be treated in an inpatient setting (58% of Medicare-covered SUD encounters were inpatient, compared with 42% statewide), while uninsured encounters were far more likely to be treated solely in the emergency department (87%, compared with 58% statewide) — likely reflecting differences in age and socioeconomic status between these payer groups.

6. Conclusion

Despite substantial investments in SUD treatment capacity and Medi-Cal coverage expansion, substance use disorders continue to strain California's hospital systems. From 2020 to 2024 utilization remained stable, with no meaningful decline in either emergency department or inpatient encounters. This flat trajectory despite policy expansion suggests current investments have not reduced reliance on hospital-based care.

Notable patterns in the data include: American Indian/Alaska Native patients experience SUD diagnoses at 14.1%—70% above the statewide average—and Black patients at 11.9%, indicating systemic disparities in prevention and treatment access. SUD patients are admitted to the hospital at nearly double the rate of the general population (42% vs. 23%), concentrated in emergency departments (58% of encounters), revealing underutilized intervention points for early treatment and care coordination. Finally, alcohol-related diagnoses rose from 32% to 37% of SUD cases while cannabis and stimulant shares declined, indicating a shift in treatment demand.

These patterns reveal gaps between current investments and their impact on hospital demand. Policymakers should prioritize equity-focused investments for high-disparity populations, strengthen emergency department-initiated treatment and hospital-to-community transitions, and rebalance treatment resources across substance-specific programs to match current diagnostic patterns.

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Data Source and Definitions

California's Department of Health Care Access and Information (HCAI) publishes data on emergency department (ED) visits and inpatient admissions related to behavioral health conditions, including mental health disorders, substance use disorders (SUD), or both.

Definitions

HCAI's behavioral health categories are adapted from definitions developed by the Center for Health Information and Analysis, in consultation with clinicians and the Agency for Healthcare Research and Quality. Subcategories are defined using Clinical Classifications Software Refined (CCSR) codes.

- **Mental health disorders**: mood disorders; suicidal ideation, self-harm, and suicide attempts; schizophrenia; and other psychotic conditions.
- **Substance use disorders**: alcohol, cannabis, stimulant, opioid, hallucinogen, sedative, and other substance-related disorders.
- **Co-occurring disorders**: patients diagnosed with at least one mental health disorder and at least one substance use disorder.
- **Emergency Department (ED) encounters**: encounters in which patients are evaluated and treated in the emergency department and discharged without admission to the hospital.
- **Inpatient encounters**: encounters in which patients are admitted to the hospital for inpatient care, including admissions that originate in the emergency department or through other points of entry.

About the Author

- Keith Siegel is a health data analyst at Cedars-Sinai Medical Center and a researcher at California Health Policy Strategies. He is pursuing a Master's in Applied Statistics at UCLA and analyzes the relationship between substance use, hospital utilization, and behavioral health policy. He can be reached at keithjsiegel@gmail.com.

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