CALIFORNIA

Health Care Almanac

CHCF

JANUARY 2022

Substance Use in California:
Prevalence and Treatment

Executive Summary

Substance use in California is widespread: Half of Californians over age 12 reported using alcohol in the past month, and 20% reported using marijuana in the past year. While many people use substances safely, the overuse or misuse of alcohol and other drugs, including illicit drugs, can lead to immediate or long-term health problems. Nine percent of Californians met the criteria for a substance use disorder (SUD) in the last year.

The health care system is moving toward acknowledging substance use disorders as chronic illnesses, yet only about 10% of people with an SUD in the last year received treatment. Overdose deaths from both opioids and psychostimulants, such as amphetamines, are soaring.

Substance Use in California: Prevalence and Treatment uses the most recent data available to provide an overview of substance use and addiction in California. Topics include prevalence of substance use, emergency department visits, deaths, and treatment.

KEY FINDINGS INCLUDE:

- The death rate from fentanyl increased 10-fold from 2015 to 2019. The rate of prescription opioid deaths fell 30% from 2011 to 2019.
- The number of amphetamine-related emergency department visits increased nearly 50% between 2018 and 2020. The number of non-heroin-related opioid ED visits more than doubled in the same period.
- California's Drug Medi-Cal Organized Delivery System pilot program has been implemented in 37 counties, which represent 96% of the state's Medi-Cal population.
- Between 2017 and 2019 the number of facilities offering residential care for substance use treatment grew by 68%, and the number of facilities offering hospital inpatient care more than doubled.
- Approximately 40% of commercial HMO and PPO health plan members with an alcohol or other drug dependence diagnosis received care that met the national quality standard of an initial treatment visit within 14 days of diagnosis.

Note: See the current and past editions of Substance Use in California at www.chcf.org/collection//behavioral-health-california-almanac.

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About Substance Use Disorders

For some people, repeated use of alcohol or other drugs can lead to substance use disorders (SUDs). SUDs can cause health problems, disability, and failure to meet responsibilities at work, school, or home. Frequent, long-term use of substances can result in physical changes in the brain that may increase the likelihood of compulsive and destructive behaviors, and can make recovery more difficult.

Like many other chronic health conditions, SUDs can be prevented, treated, and managed. Behavioral therapy, which seeks to identify and help change potentially self-destructive or unhealthy behaviors, can benefit people with a wide range of disorders. For some substances, including alcohol and opioids, behavioral therapy is often most effective when combined with medications that can manage withdrawal, reduce cravings, and decrease the physical "reward" from substance use. Peer support is another highly valued component of SUD recovery.

Substance use disorders (SUDs) are common, chronic, and often serious illnesses. However, SUDs can be prevented, treated, and managed.

Sources: "Drug Misuse and Addiction," National Institute on Drug Abuse; "Drugs and the Brain," National Institute on Drug Abuse; "Treatment and Recovery," National Institute on Drug Abuse; and Sharon Reif et al., "Peer Recovery Support for Individuals with Substance Use Disorders: Assessing the Evidence," *Psychiatric Services* 65, no. 7 (July 2014): 853–61.

Definitions of Substance Use Disorder Terms

DSM-5 (IN USE BEGINNING 2014)

Substance use disorder is a problematic pattern of substance use leading to clinically significant impairment or distress as manifested by at least 2 of 11 symptoms occurring in a 12-month period. Presence of 2 to 3 symptoms is considered mild; presence of 4 to 5 symptoms is considered moderate; presence of 6 or more symptoms is considered severe. (See Appendix A for the full definition.)

DSM-IV-TR (IN USE 2000–14)

Abuse of or dependence on alcohol or illicit drugs is a maladaptive pattern of substance use leading to clinically significant impairment or distress occurring within a 12-month period.

Substance abuse is a pattern of substance use that leads to the failure to fulfill responsibilities at work, home, or school, or repeated use in situations in which it is physically hazardous.

Substance dependence may include a user's increase in tolerance, withdrawal syndrome, unsuccessful attempts to cut down or quit using, loss of control over substance use, and consistent use of more substances and for longer than intended.

Other

Binge alcohol use, unless otherwise defined, is drinking five or more drinks for males, or four or more drinks for females, on the same occasion (i.e., at the same time or within a couple of hours of each other) on at least one day in the past 30 days.

Illicit drugs are marijuana/hashish, cocaine (including crack), inhalants, hallucinogens, heroin, methamphetamine, or prescription-type drugs used nonmedically.

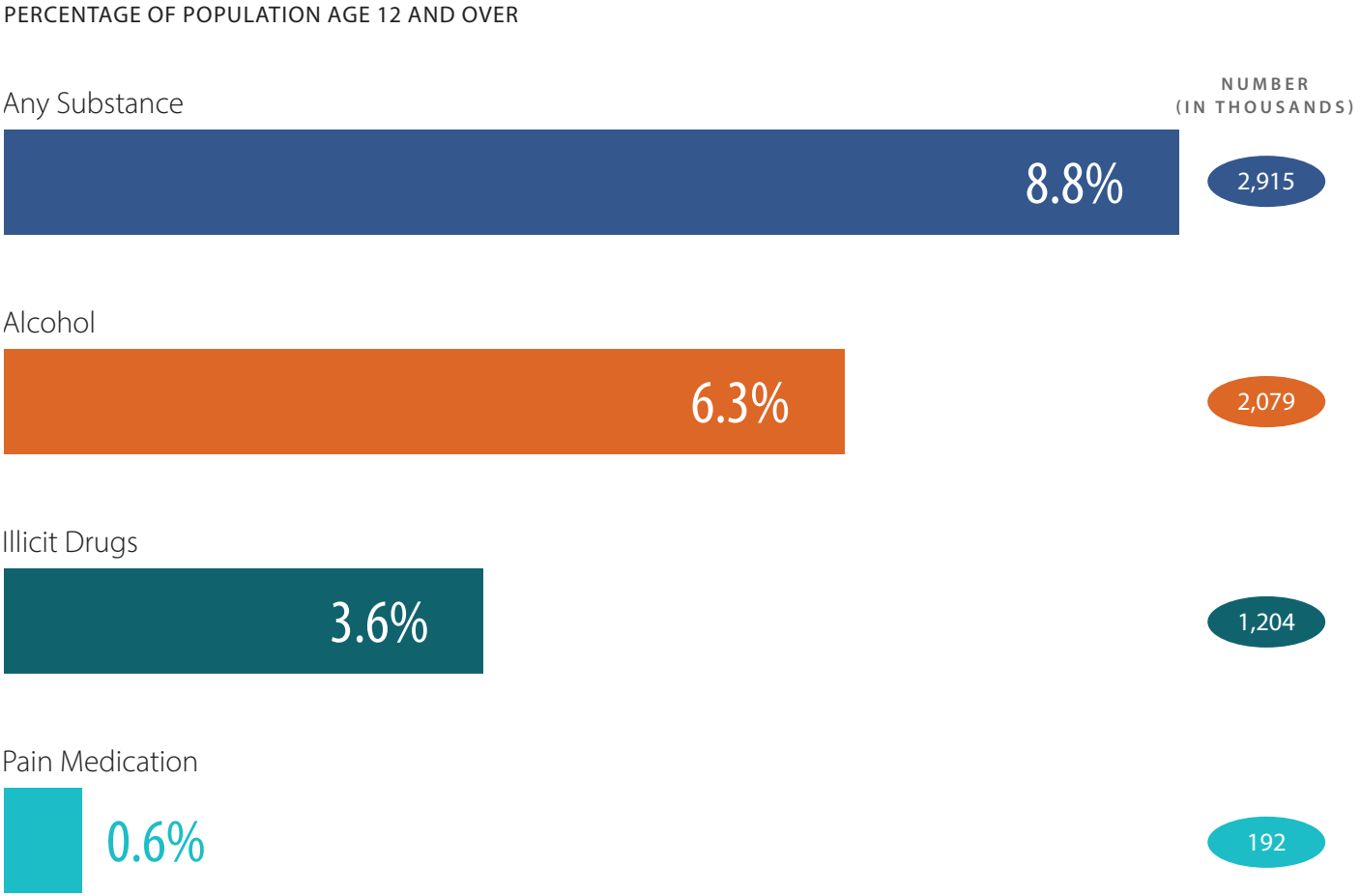
The American Psychiatric Association's *Diagnostic and Statistical Manual of Mental Disorders (DSM)* provides the standard definitions of substance use disorder for the United States.

Notes: *DSM* is *Diagnostic and Statistical Manual of Mental Disorders*. Some of the measures for prevalence presented in this document reflect the diagnostic terminology in use at the time of data collection (DSM-IV-TR). While California Proposition 64 (2016) legalized recreational use of marijuana for adults over age 21 (effective January 1, 2018), marijuana is still considered an illicit substance at the federal level.

Sources: *Diagnostic and Statistical Manual of Mental Disorders, 5th Edition: DSM-5* (Washington, DC: Amer. Psychiatric Assn., 2013); and *Behavioral Health Barometer: California, 2015* (PDF), Substance Abuse and Mental Health Services Administration.

Substance Use Disorder Prevalence, by Drug Type

California, Annual Average, 2018 to 2019

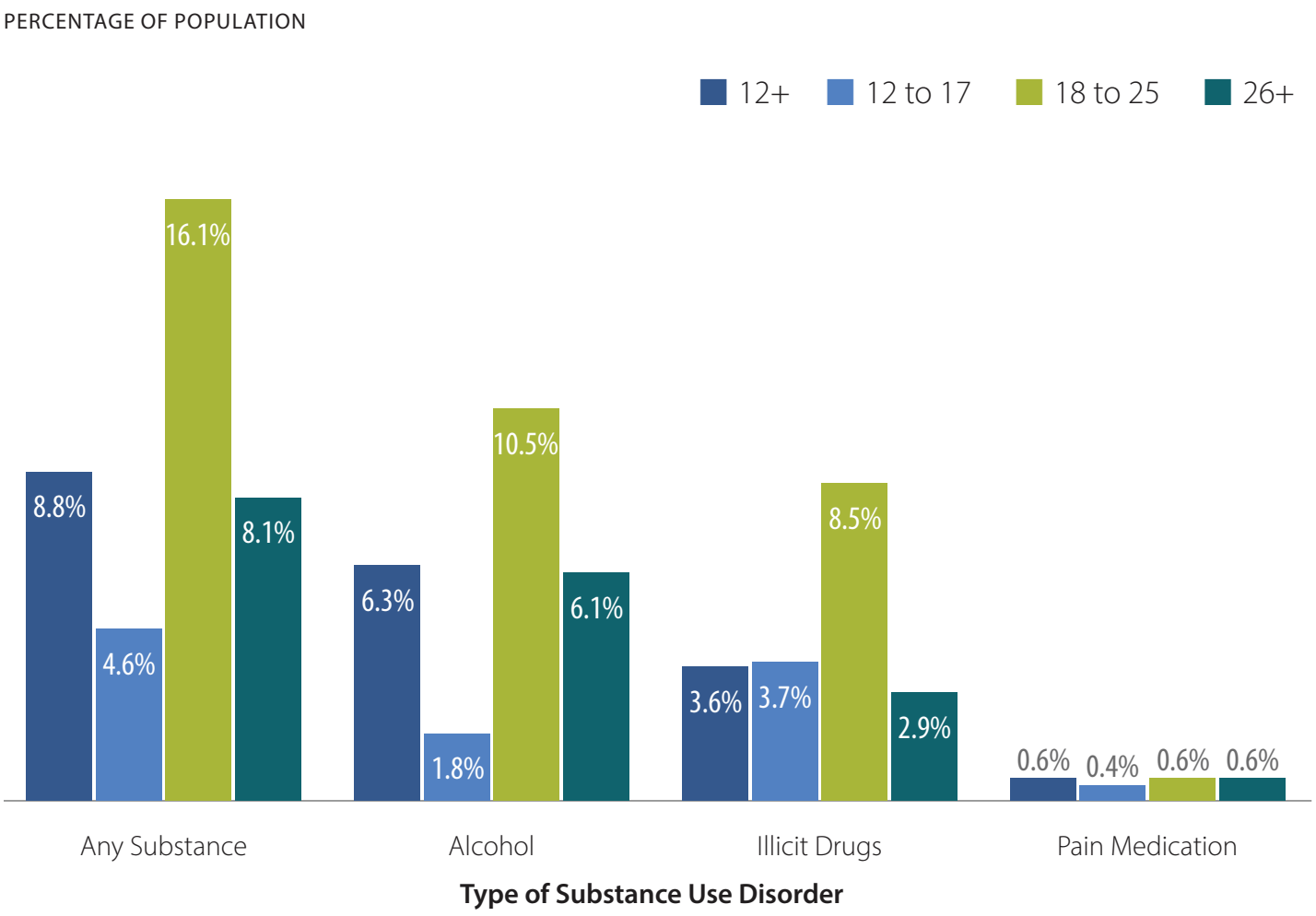


Notes: *Substance use disorder* is defined as meeting criteria for illicit drug or alcohol dependence or abuse. *Illicit drugs* includes marijuana/hashish, cocaine (including crack), heroin, hallucinogens, inhalants, methamphetamine, and nonmedical use of prescription drugs. *Pain medication* is referred to as *pain reliever* in the survey and is defined as use in any way not directed by a doctor. See page 4 for further definition of dependence, abuse, and illicit drugs. While California Proposition 64 (2016) legalized recreational use of marijuana for adults over age 21 (effective January 1, 2018), marijuana is still considered an illicit substance at the federal level.

Source: *National Survey on Drug Use and Health* (2018-2019), Substance Abuse and Mental Health Services Administration, table 20.

Approximately 2.9 million Californians (9%) age 12 and older had a substance use disorder in the past year. Six percent reported symptoms that met the criteria for abuse of or dependence on alcohol, and about 4% reported meeting criteria for abuse of or dependence on illicit drugs.

Substance Use Disorder in the Past Year, by Drug Type and Age Group, California, Annual Average, 2018 to 2019



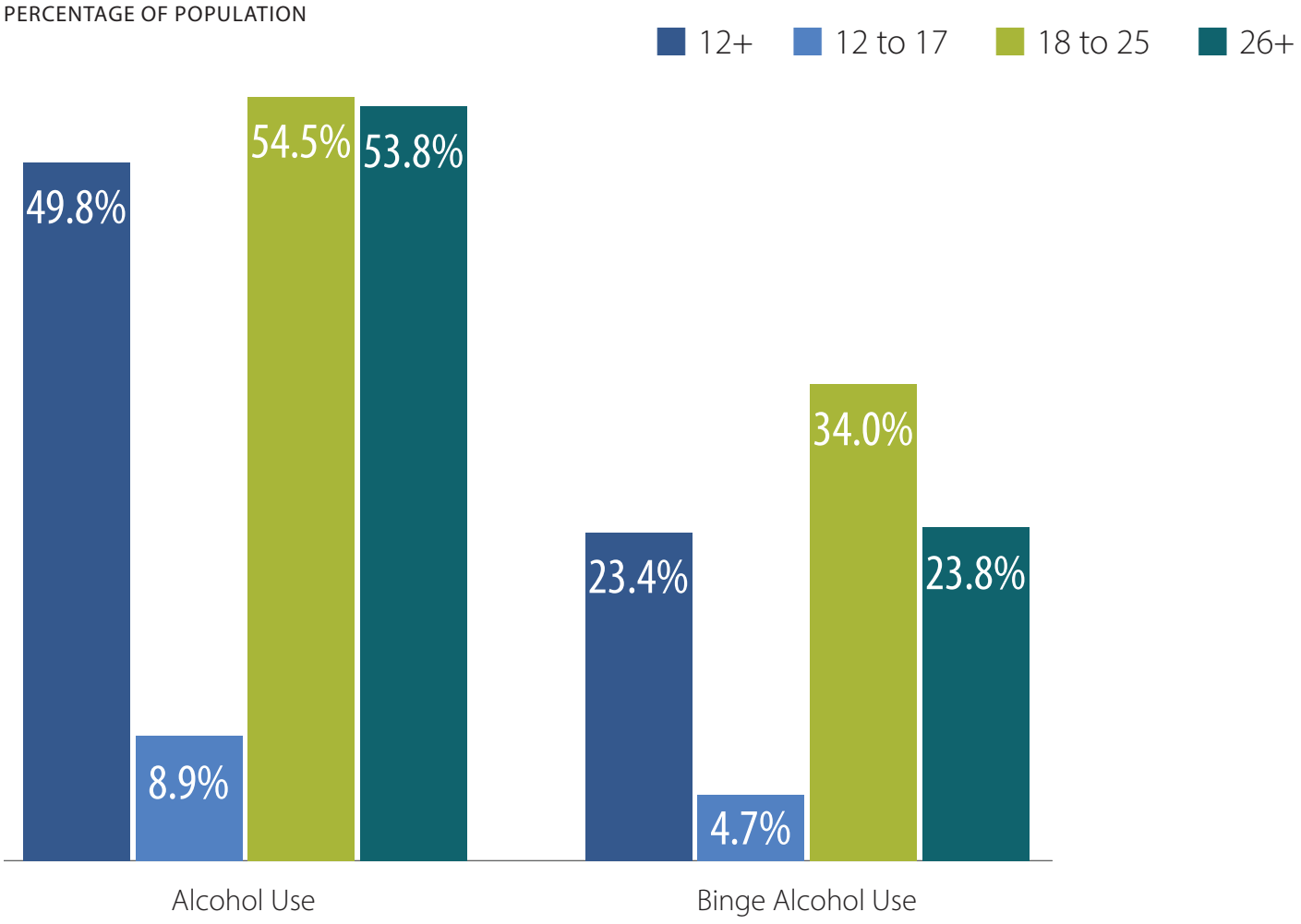
Notes: *SUD* (substance use disorder) is defined as meeting criteria for illicit drug or alcohol dependence or abuse. *Illicit drugs* includes marijuana/hashish, cocaine (including crack), heroin, hallucinogens, inhalants, methamphetamine, and nonmedical use of prescription drugs. *Pain medication* is referred to as *pain reliever* in the survey and is defined as use in any way not directed by a doctor. See page 4 for further definition of dependence, abuse, and illicit drugs. While California Proposition 64 (2016) legalized recreational use of marijuana for adults over age 21 (effective January 1, 2018), marijuana is still considered an illicit substance at the federal level.

Source: *National Survey on Drug Use and Health* (2018-2019), Substance Abuse and Mental Health Services Administration, table 20.

The rate of substance use disorder among young adults (age 18 to 25) was nearly twice that of adults age 26 and older and more than three times that of adolescents. Adults 26 and older were twice as likely to have alcohol use disorders as illicit drug use disorders.

Alcohol Use in the Past Month, by Age Group

California, Annual Average, 2018 to 2019



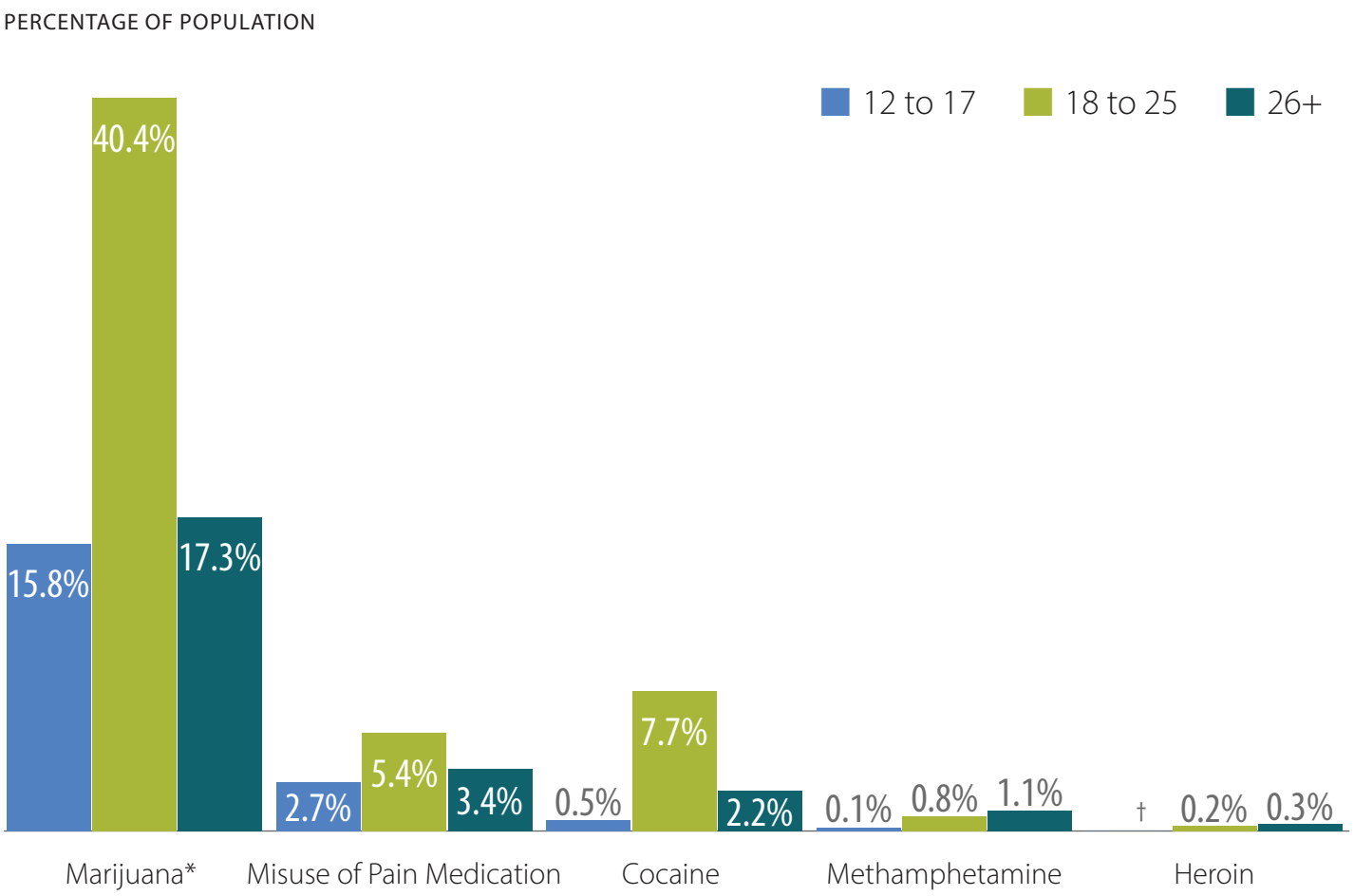
Note: *Binge alcohol use* is defined as drinking five or more drinks for males or four or more drinks for females on the same occasion (i.e., at the same time or within a couple hours of each other) on at least 1 day in the past 30 days.

Source: *National Survey on Drug Use and Health* (2018-2019), Substance Abuse and Mental Health Services Administration, table 20.

More than half of all adults reported using alcohol in the past month. About one-third of young adults (18 to 25) reported binge alcohol use in the past month.

Drug Use in the Past Year, by Type and Age Group

California, Annual Average, 2018 to 2019



* While California Proposition 64 (2016) legalized recreational use of marijuana for adults over age 21 (effective January 1, 2018), it is still considered an illicit substance at the federal level.

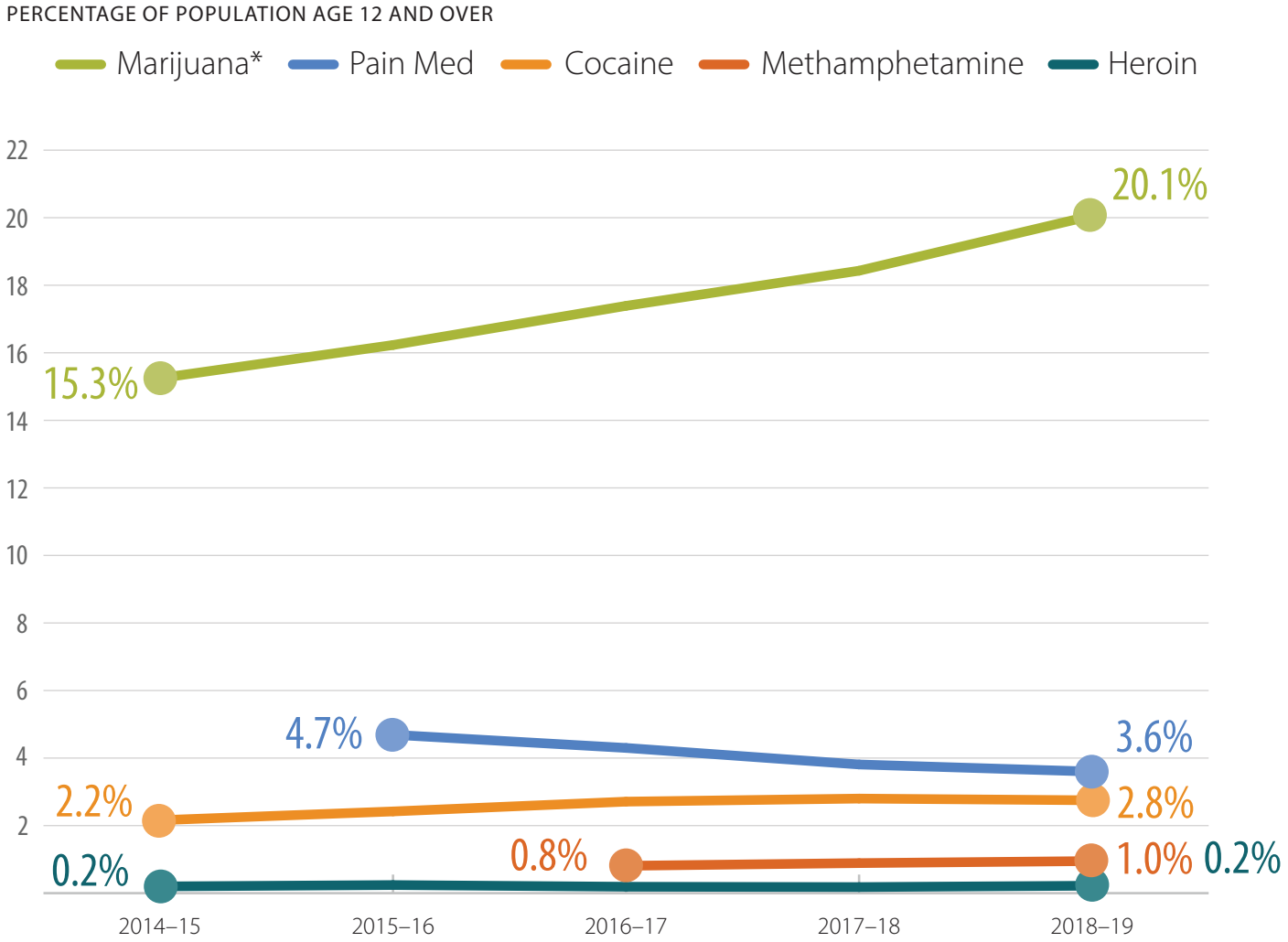
† Heroin use for age 12 to 17 was 0.01%.

Notes: *Pain medications* are referred to as *pain relievers* in the survey. *Cocaine* includes crack. See page 4 for further definitions.

Source: *National Survey on Drug Use and Health* (2018-2019), Substance Abuse and Mental Health Services Administration, table 20.

Marijuana was the most commonly used drug among all age groups.* Young adults age 18 to 25 were more than twice as likely to report marijuana use in the past year compared to teens age 12 to 17 or adults age 26 and older. Similarly, young adults were more than three times as likely as older adults to report cocaine use in the past year.

Drug Use in the Past Year, by Type
California, 2014–15 to 2018–19



* While California Proposition 64 (2016) legalized recreational use of marijuana for adults over age 21 (effective January 1, 2018), it is still considered an illicit substance at the federal level.

Notes: Data are annual averages. *Pain med* (medication) is referred to as *pain relievers* in the survey and is defined as use in any way not directed by a doctor. *Cocaine* includes crack.

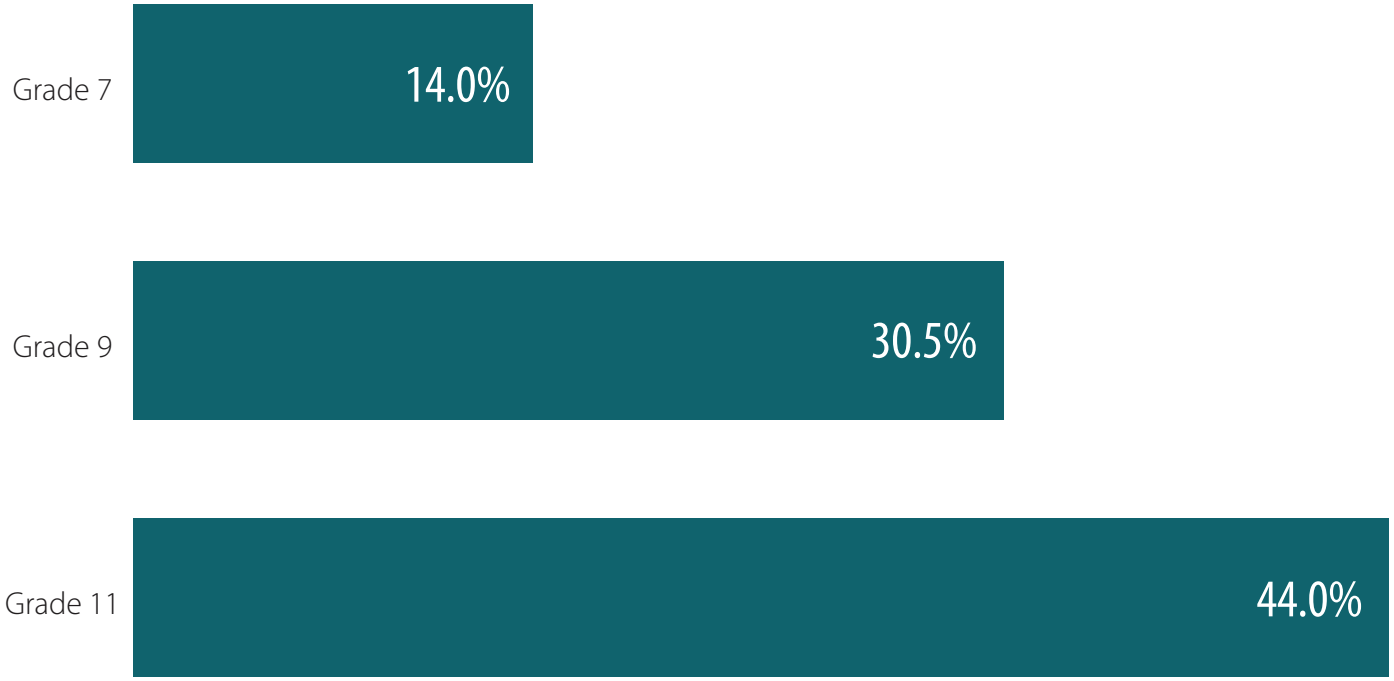
Source: *National Survey on Drug Use and Health* (2015–19), Substance Abuse and Mental Health Services Administration, table 20.

Past-year marijuana use increased from 15% in 2014–15 to 20% in 2018–19. Marijuana use became legal for Californians age 21 and older in 2018. In contrast, the rate of past-year pain medication use fell by more than 20% between 2015–16 and 2018–19. Of all the drugs shown, heroin was used least frequently.

Adolescent Lifetime Alcohol or Drug Use, by Grade

California, 2017 to 2019

PERCENTAGE OF PUBLIC SCHOOL STUDENTS WHO USED ALCOHOL OR DRUGS AT LEAST ONCE



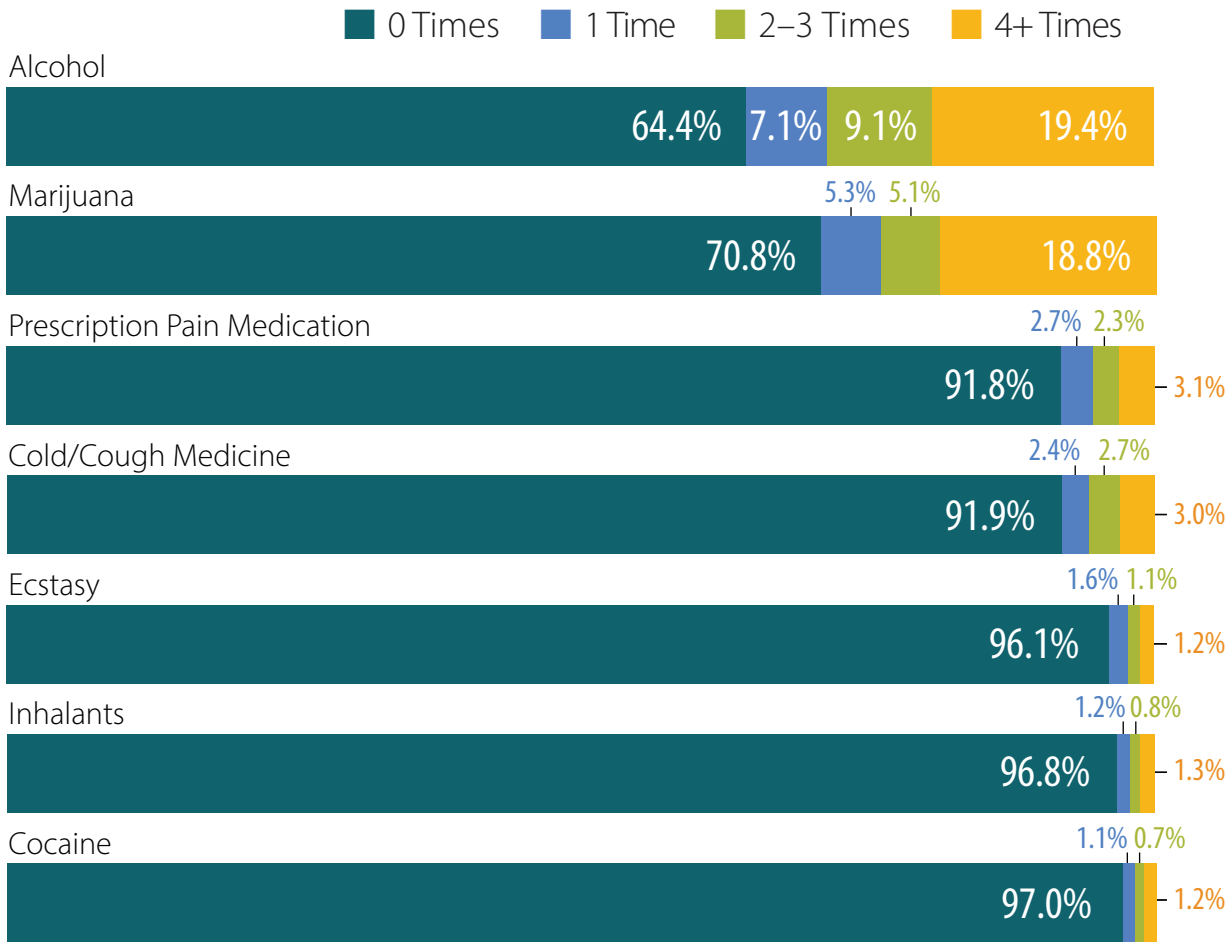
Self-reported lifetime use by California students of alcohol or drugs increased dramatically from grade 7 to grade 11. Forty-four percent of high school juniors reported having used alcohol or drugs in their lifetimes.

Note: Includes alcohol; marijuana; inhalants; cocaine, methamphetamine, or any other amphetamines; heroin; ecstasy, LSD, or other psychedelics; prescription pain medication, opioids, tranquilizers, sedatives, diet pills, or other prescription stimulant; cold/cough medicines or other over-the counter medicines to get high and any other drug, pill, or medicine to get high.

Source: Gregory Austin et al., *School Climate and Student Engagement and Well-Being in California, 2017/19: Results of the Seventeenth Biennial State California Healthy Kids Survey, Grades 7, 9, and 11* (PDF), WestEd Health & Human Development Program, 2020.

Lifetime Alcohol or Drug Use, 11th Grade Students
by Number of Times Used, California, 2017 to 2019

PERCENTAGE OF 11TH GRADE PUBLIC SCHOOL STUDENTS



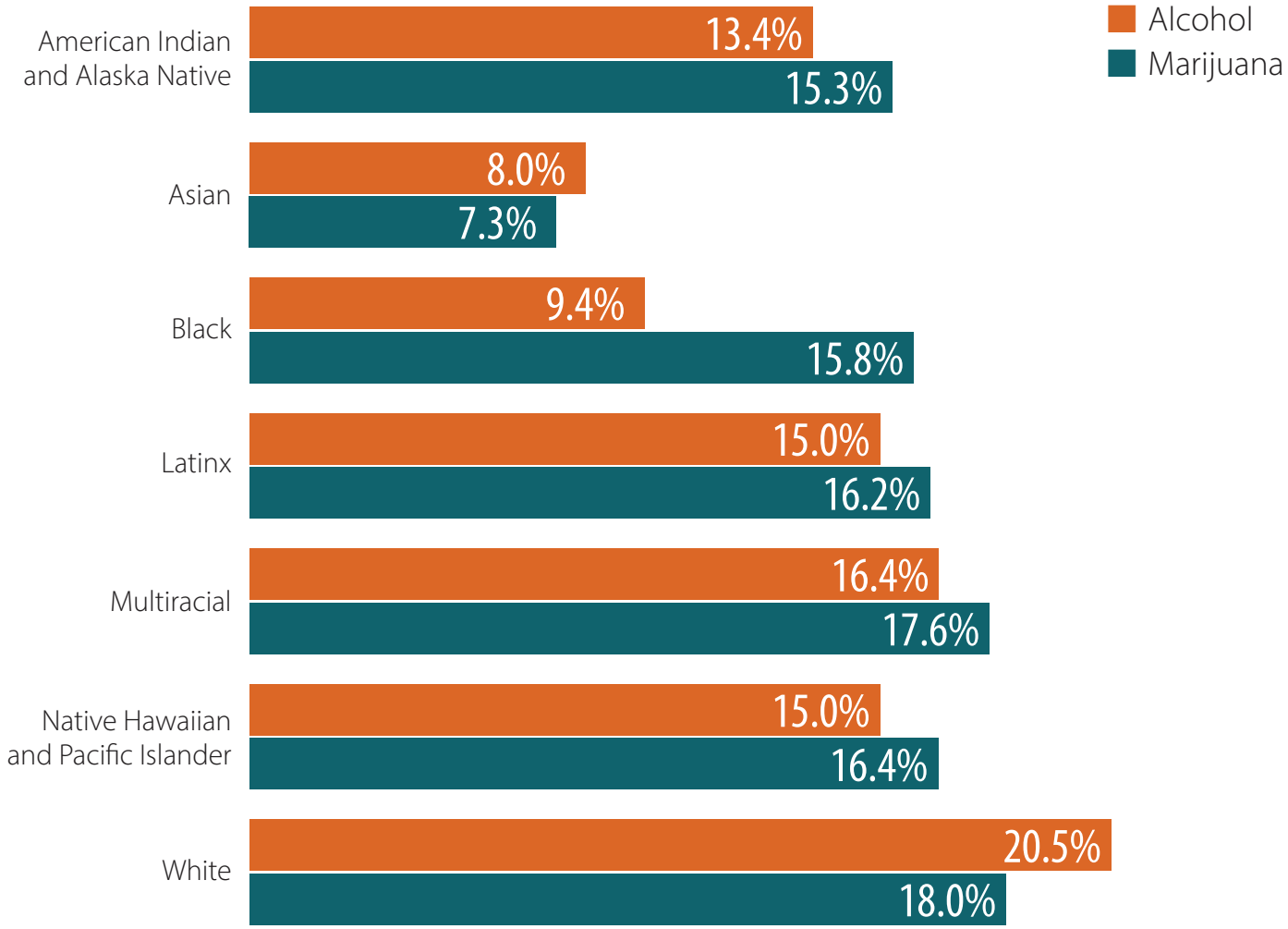
Notes: *Cold/cough medicine* and *prescription pain medications* include students who indicated they used substances to get high or for other-than-medical reasons. *Alcohol* is one full drink. *Marijuana* include smoking, vaping, eating, or drinking. *Cold/cough medicine* includes other over-the-counter medicines. *Prescription pain medication* includes opioids, tranquilizers, or sedatives. *Ecstasy* includes LSD and other psychedelics. *Cocaine* includes methamphetamine or any other amphetamines. Figures may not total 100% due to rounding.

Source: Gregory Austin et al., *School Climate and Student Engagement and Well-Being in California, 2017/19: Results of the Seventeenth Biennial State California Healthy Kids Survey, Grades 7, 9, and 11* (PDF), WestEd Health & Human Development Program, 2020.

Alcohol and marijuana were the most frequently used substances among 11th graders in California. Nearly one in five reported having used alcohol or marijuana four or more times in their lifetimes.

Alcohol and Marijuana Use in Past 30 Days, 11th Grade Students, by Race/Ethnicity, California, 2017 to 2019

PERCENTAGE OF 11TH GRADE PUBLIC SCHOOL STUDENTS WHO USED ... IN THE PAST 30 DAYS



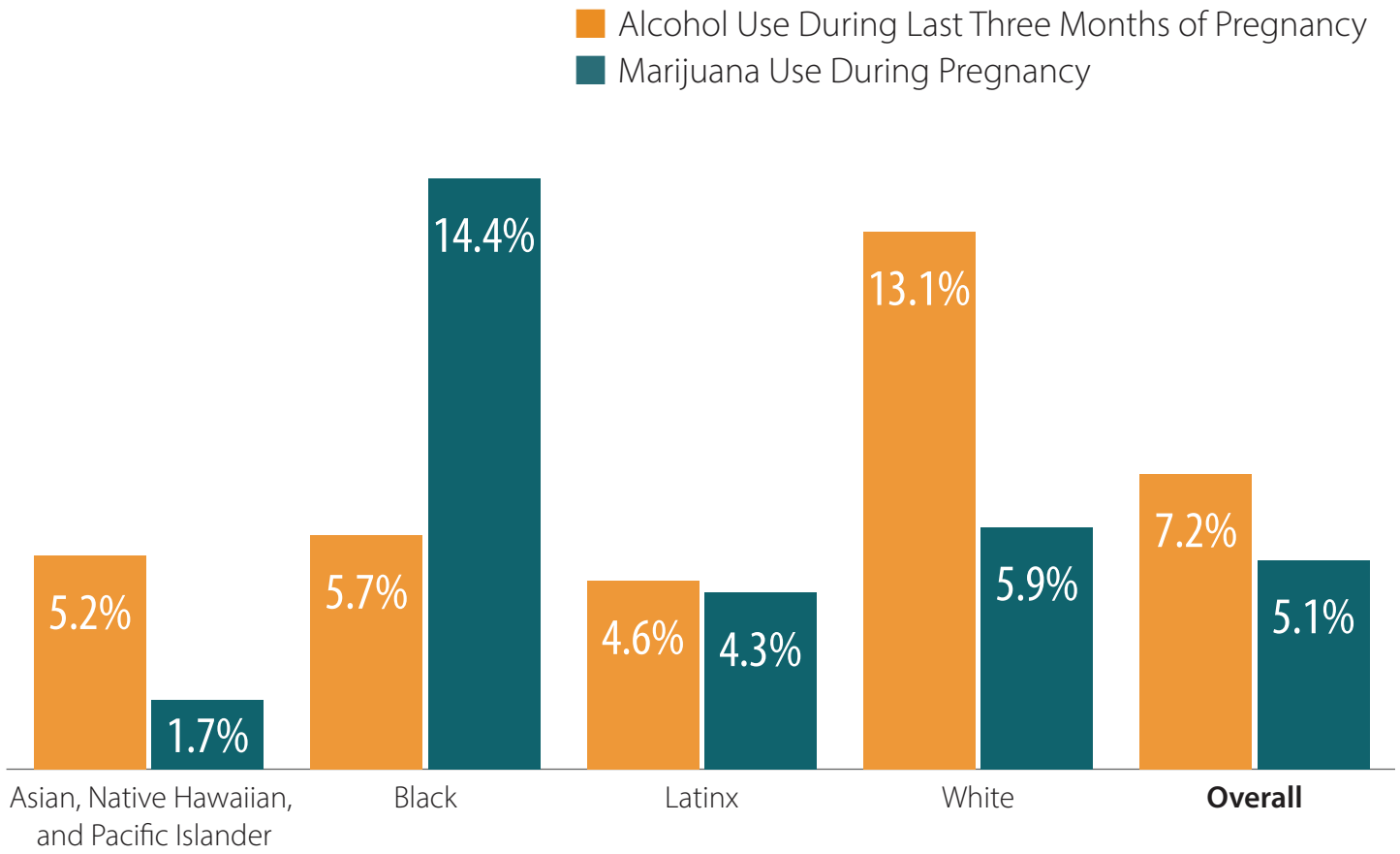
Note: Source uses *Black or African American*, *Hispanic or Latino*, and *Mixed (two or more races)*.

Source: Gregory Austin et al., *School Climate and Student Engagement and Well-Being in California, 2017/19: Results of the Seventeenth Biennial State California Healthy Kids Survey, Grades 7, 9, and 11* (PDF), WestEd Health & Human Development Program, 2020.

In California, one in five White high school juniors reported drinking alcohol in the last 30 days. With the exception of Asian students, at least 15% of students of all racial/ethnic groups reported past-month use of marijuana.

Alcohol and Marijuana Use During Pregnancy
by Race/Ethnicity, California, 2018 to 2019

PERCENTAGE OF BIRTHING PEOPLE WITH A LIVE BIRTH

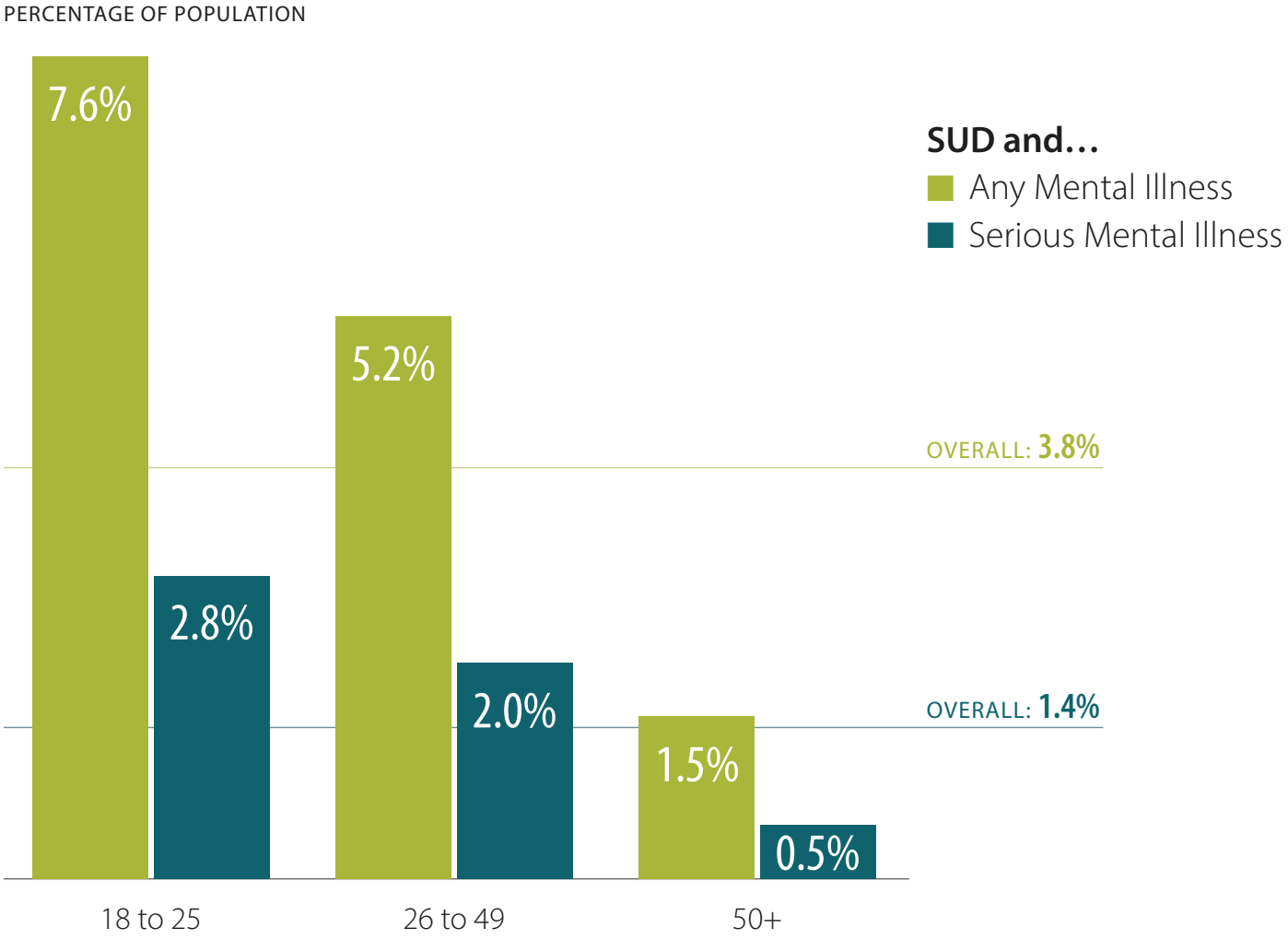


Notes: *Birthing people* is used to recognize that not all people who become pregnant and give birth identify as women or mothers. Data from a population-based survey of 12,208 California-resident women with a live birth in 2018 to 2019. Data are weighted to represent all people with a live birth in California. Source uses *Asian / Pacific Islander* and *Hispanic*.

Source: Special data request, Maternal and Infant Health Assessment 2018–19, California Dept. of Public Health.

Compared to other races, White birthing people were more likely to report alcohol use during the last three months of pregnancy while Black birthing people were more likely to report marijuana use during pregnancy.

Substance Use Disorder and Mental Illness, Adults
by Age Group, United States, 2019



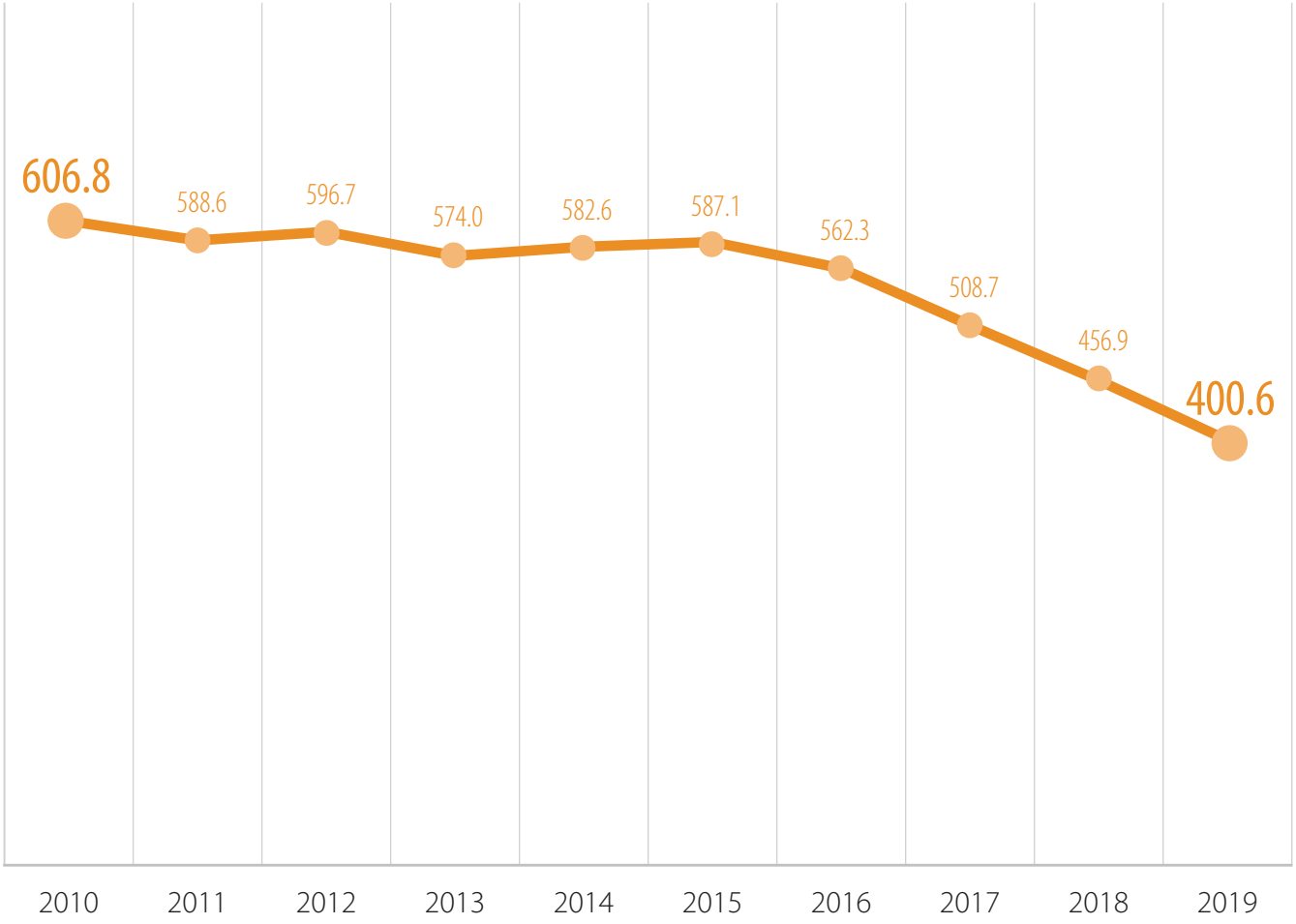
Notes: *SUD* is substance use disorder. *Any mental illness* is defined as adults 18 or older who currently have, or at any time in the past year have had, a diagnosable mental, behavioral, or emotional disorder, regardless of the level of impairment in carrying out major life activities. *Serious mental illness* is defined as adults 18 or older who currently have, or at any time in the past year have had, a diagnosable mental, behavioral, or emotional disorder resulting in substantial impairment in carrying out major life activities.

Source: *National Survey on Drug Use and Health Detailed Tables* (2019), Substance Abuse and Mental Health Services Administration, tables 8.9B and 8.11B.

In the US, 4% of adults had both a substance use disorder (SUD) and any mental illness during the past year, and 1% had both an SUD and a serious mental illness. Adults age 18 to 25 were more likely than older adults to have these co-occurring conditions.

Opioid Prescriptions
California, 2010 to 2019

RATE PER 1,000 POPULATION (AGE-ADJUSTED)



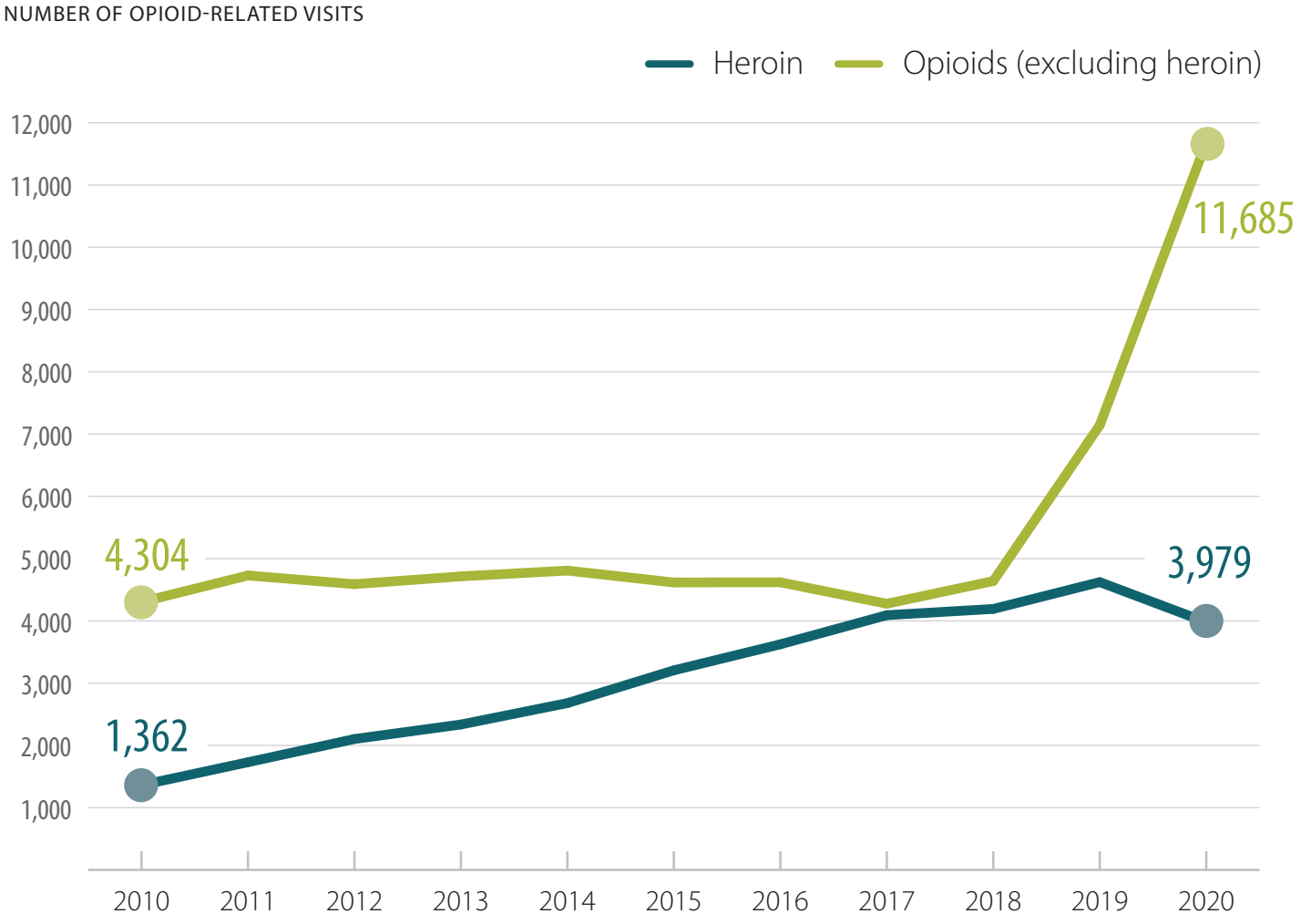
Notes: Relative number of all opioid prescriptions (any quantity) filled at a pharmacy. Excludes buprenorphine because its use for pain is trivial statistically, compared to its use for addiction.

Source: "California Overdose Surveillance Dashboard," California Dept. of Public Health.

The rate of opioid prescriptions in California decreased by 34% between 2010 and 2019. The state has implemented several efforts aimed at reducing the use of prescription opioids, including a prescription drug monitoring program and opioid prescribing guidelines, as well as programs that expand access to medication-assisted treatment for opioid use disorder.

Nonfatal ED Visits for Opioids

California, 2010 to 2020

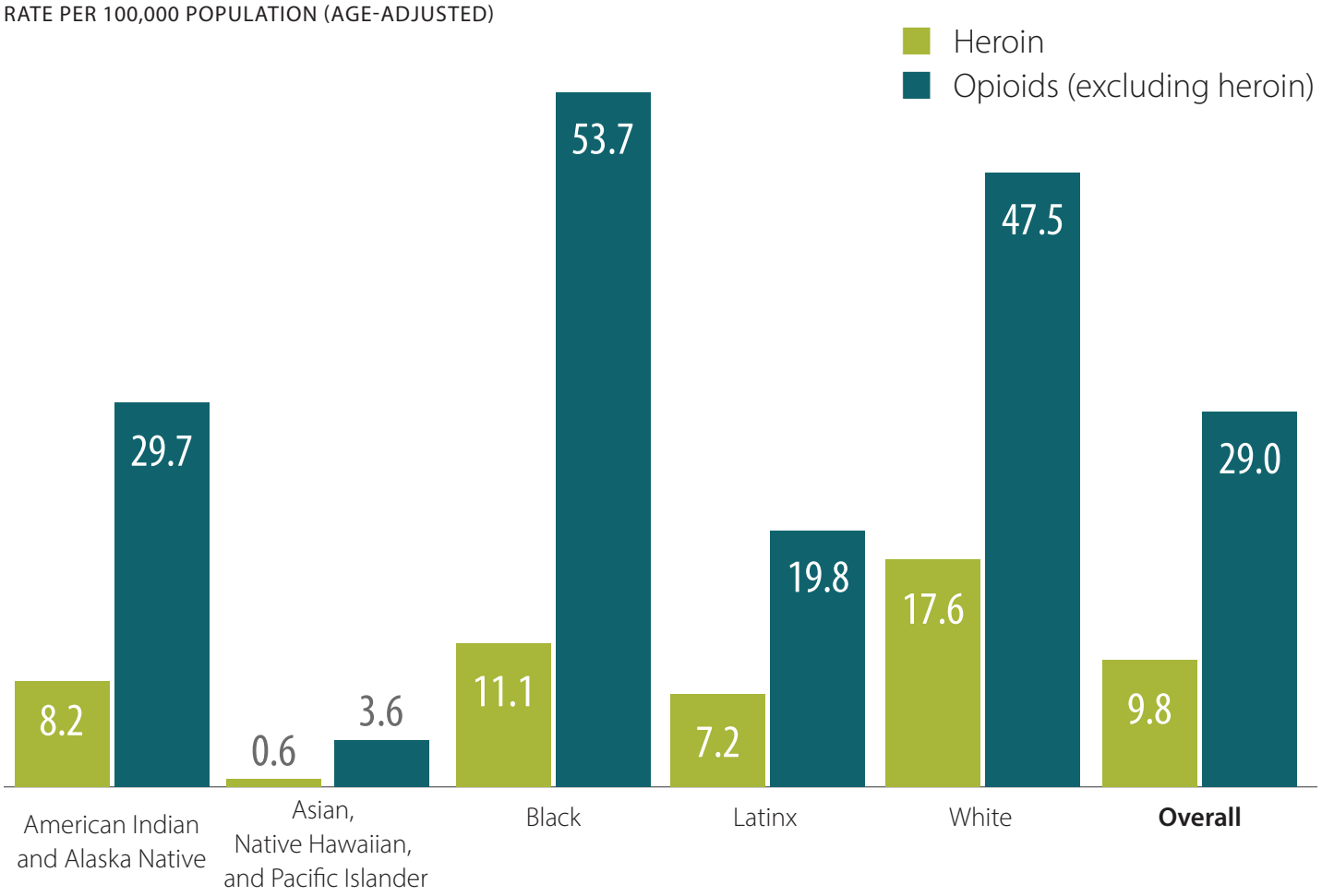


Between 2019 and 2020 the number of heroin-related emergency department visits in California decreased while the number of non-heroin-related opioid ED visits increased by nearly 60%.

Note: *Nonfatal ED visits* refers to emergency department visits caused by nonfatal acute poisonings due to the effects of opioid drugs regardless of intent (e.g., suicide, unintentional, or undetermined).

Source: "California Overdose Surveillance Dashboard," California Dept. of Public Health.

Nonfatal ED Visits for Opioids
by Race/Ethnicity, California, 2020



Notes: *Nonfatal ED* visits refers to emergency department visits caused by nonfatal acute poisonings due to the effects of opioid drugs regardless of intent (e.g., suicide, unintentional, or undetermined). Source uses *Black / African American*, *Hispanic/Latino*, *Native American / Alaska Native*, and *Asian / Pacific Islander*.

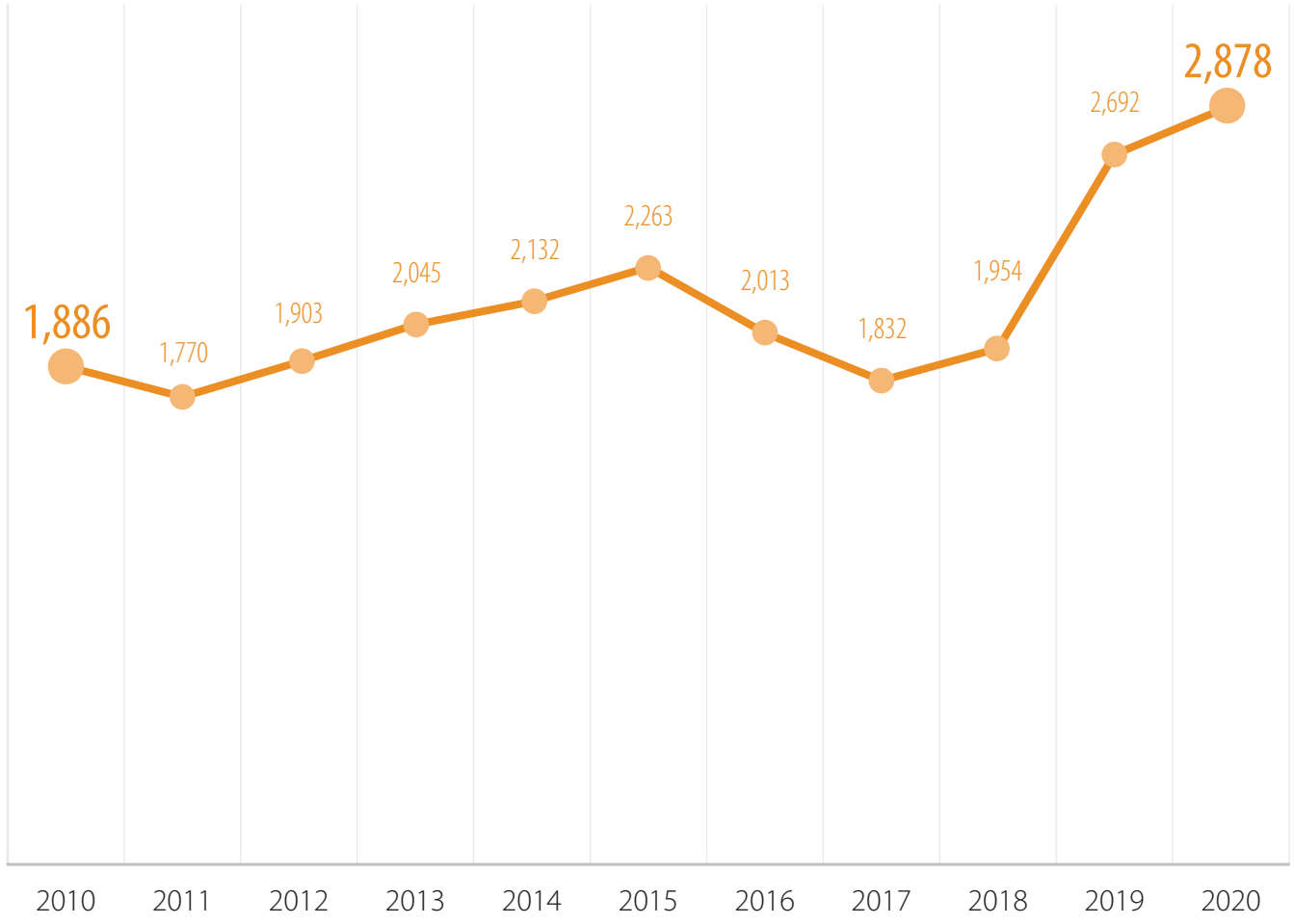
Source: "California Overdose Surveillance Dashboard," California Dept. of Public Health.

The rate of nonfatal emergency department (ED) visits for opioids (excluding heroin) was highest for Black Californians. The rate of nonfatal ED visits for heroin overdose was higher for White Californians than for other races/ethnicities.

Nonfatal ED Visits for Amphetamines

California, 2010 to 2020

NUMBER OF AMPHETAMINE-RELATED VISITS

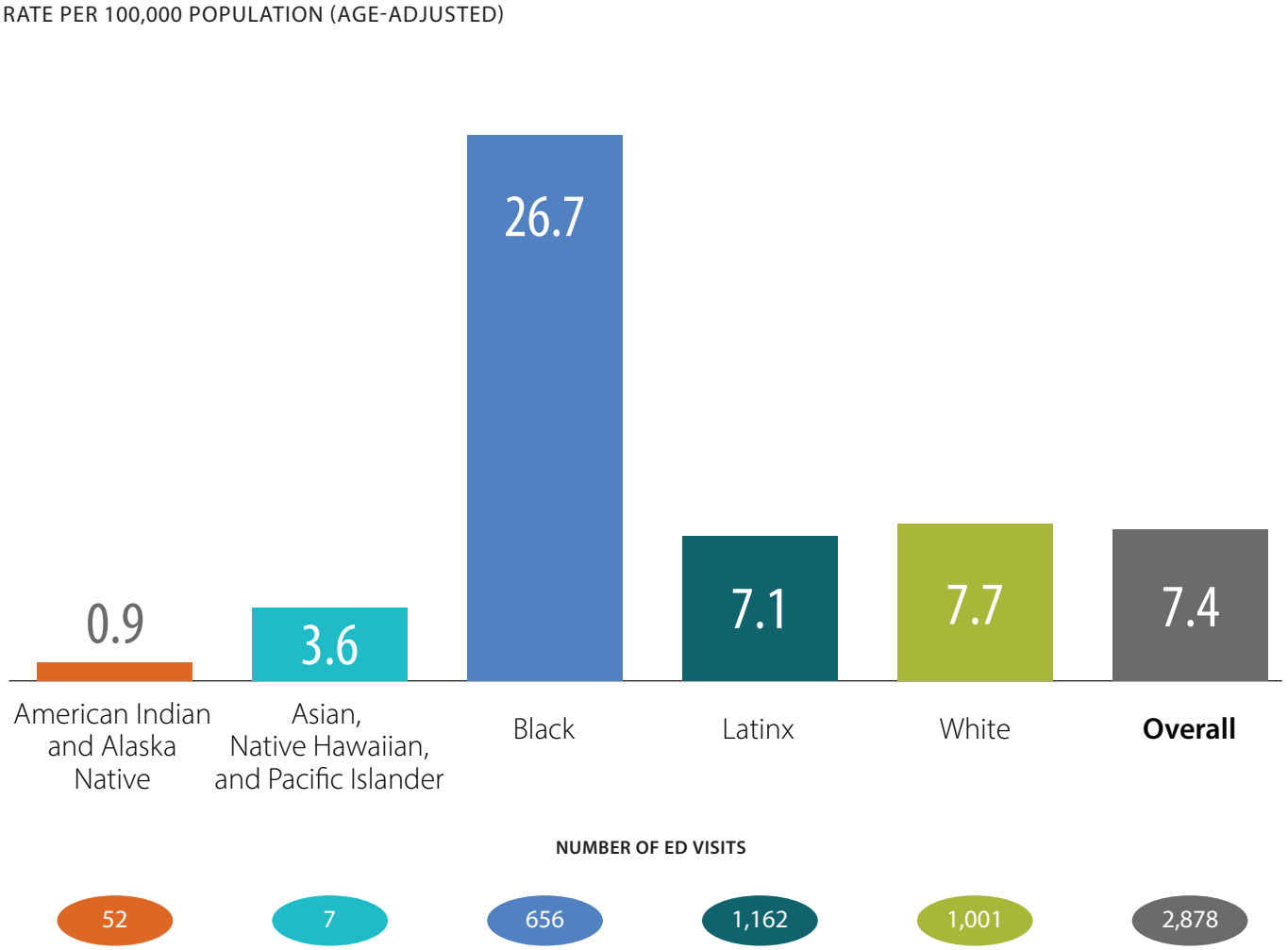


Note: *Nonfatal ED* visits refers to emergency department visits caused by nonfatal acute poisonings due to the effects of amphetamines (such as methamphetamine), regardless of intent (e.g., suicide, unintentional, or undetermined).

Source: "California Overdose Surveillance Dashboard," California Dept. of Public Health.

The number of amphetamine-related emergency department visits in California increased nearly 50% between 2018 and 2020.

Nonfatal ED Visits for Amphetamines
by Race/Ethnicity, California, 2020



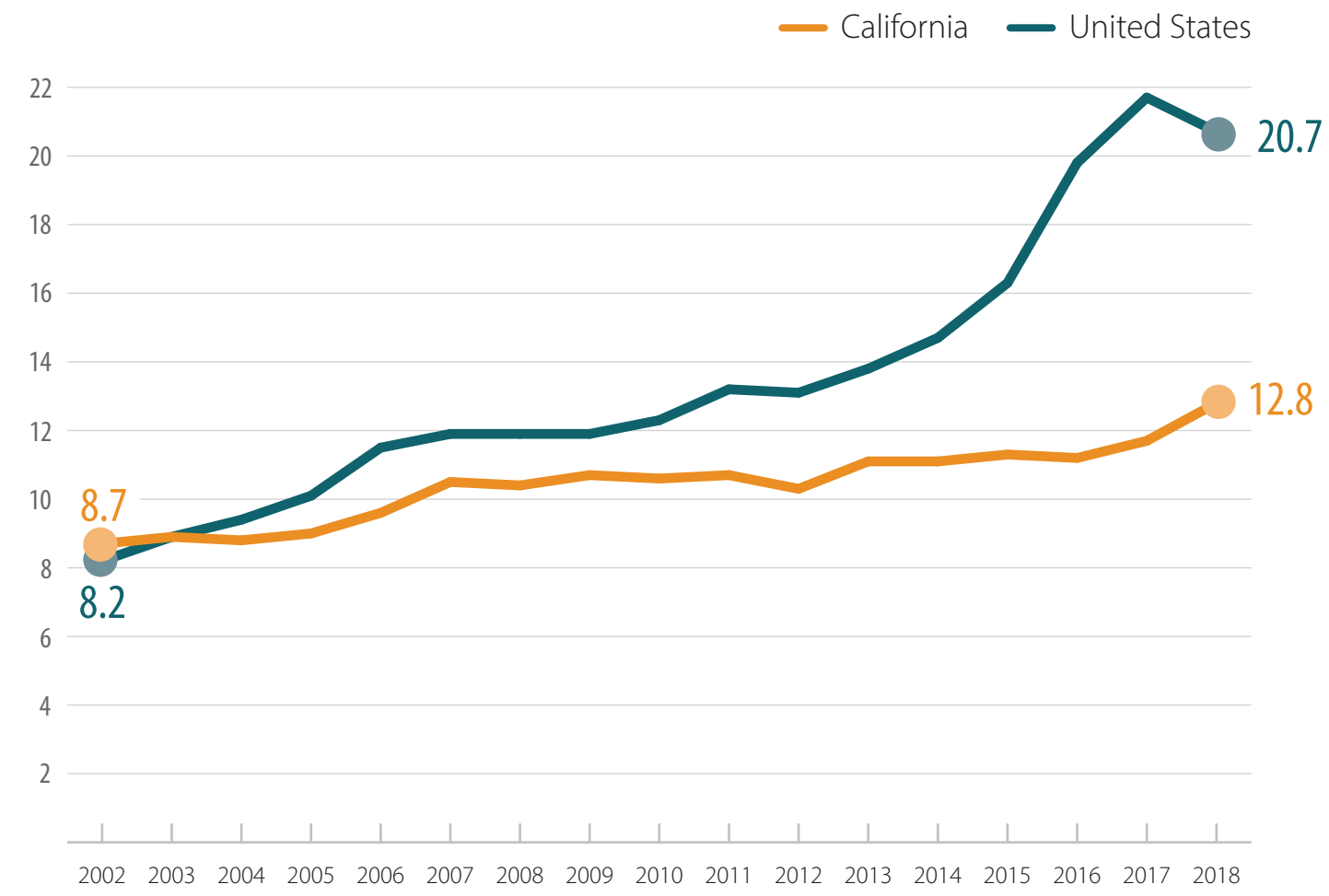
While Black Californians had the highest rate of nonfatal emergency department visits for amphetamines, Latinx Californians accounted for 40% of those visits.

Notes: *Nonfatal ED visits* refers to emergency department visits caused by nonfatal acute poisonings due to the effects of amphetamines regardless of intent (e.g., suicide, unintentional, or undetermined). Source uses *Black / African American*, *Hispanic/Latino*, *Native American / Alaska Native*, and *Asian / Pacific Islander*.

Source: "California Overdose Surveillance Dashboard," California Dept. of Public Health.

Drug Poisoning Deaths

California vs. United States, 2002 to 2018



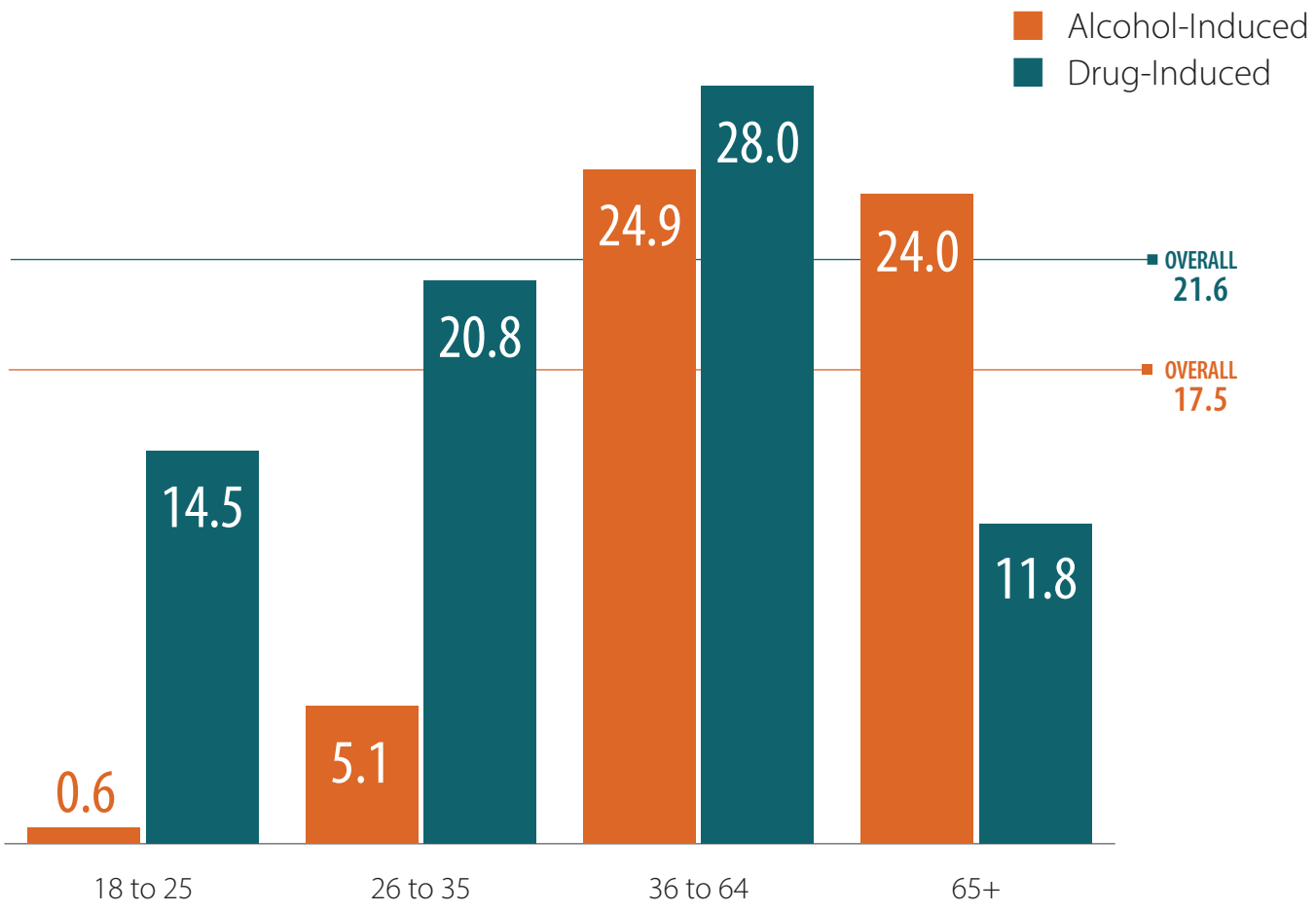
Notes: Deaths are classified using the International Classification of Diseases, 10th revision (ICD–10). Drug-poisoning deaths are defined as having underlying cause-of-death ICD–10 codes X40–X44 (unintentional), X60–X64 (suicide), X85 (homicide), or Y10–Y14 (undetermined intent). Estimates are based on the National Vital Statistics System multiple cause-of-death mortality files.

Source: "Drug Poisoning Mortality in the United States, 1999-2018," Centers for Disease Control and Prevention.

In California and nationally, the drug poisoning death rate has increased since 2002. In 2018, there were 5,348 drug poisoning deaths in California, up from 2,975 in 2002 (not shown). California's drug poisoning death rate has been lower than the national rate since 2004.

Drug- and Alcohol-Induced Deaths, Adults
by Age Group, California, 2019

RATE PER 100,000 POPULATION



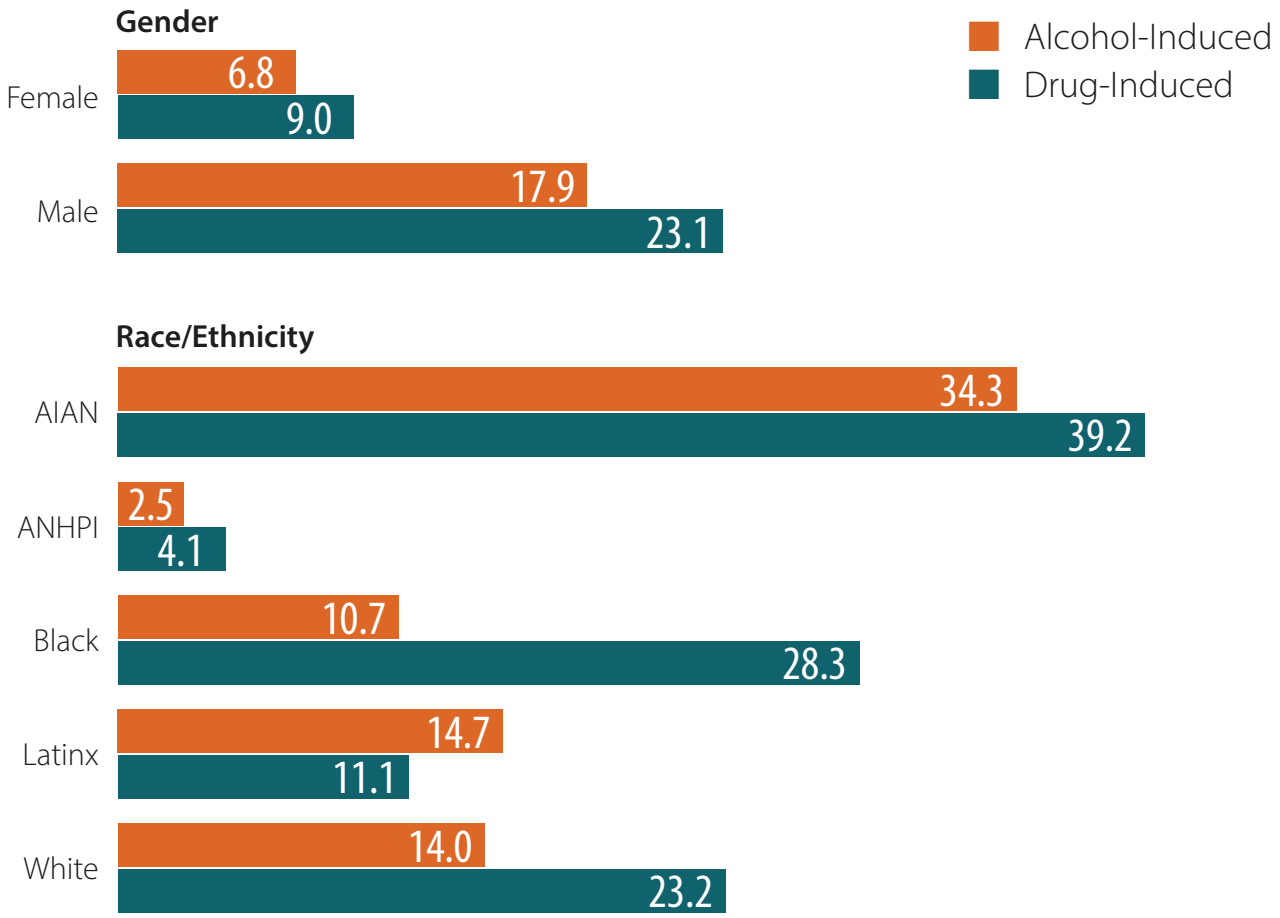
Notes: Data come from registered death certificates. Excludes deaths when age not indicated. Drug-induced deaths are drug poisonings (overdoses) with ICD-10 codes that cover suicide, homicide, and unintentional or undetermined poisoning. Alcohol-induced deaths include accidental or intended poisoning in addition to other conditions directly induced by use of alcohol.

Source: "Underlying Cause of Death, 1999-2019," Centers for Disease Control and Prevention.

The drug-induced death rate was highest for adults age 36 to 64. For adults age 26 to 35, the rate of drug-induced deaths was significantly greater than the rate of alcohol-induced deaths, while the reverse was true for those 65 and over.

Drug- and Alcohol-Induced Deaths
by Gender and Race/Ethnicity, California, 2019

RATE PER 100,000 POPULATION (AGE-ADJUSTED)

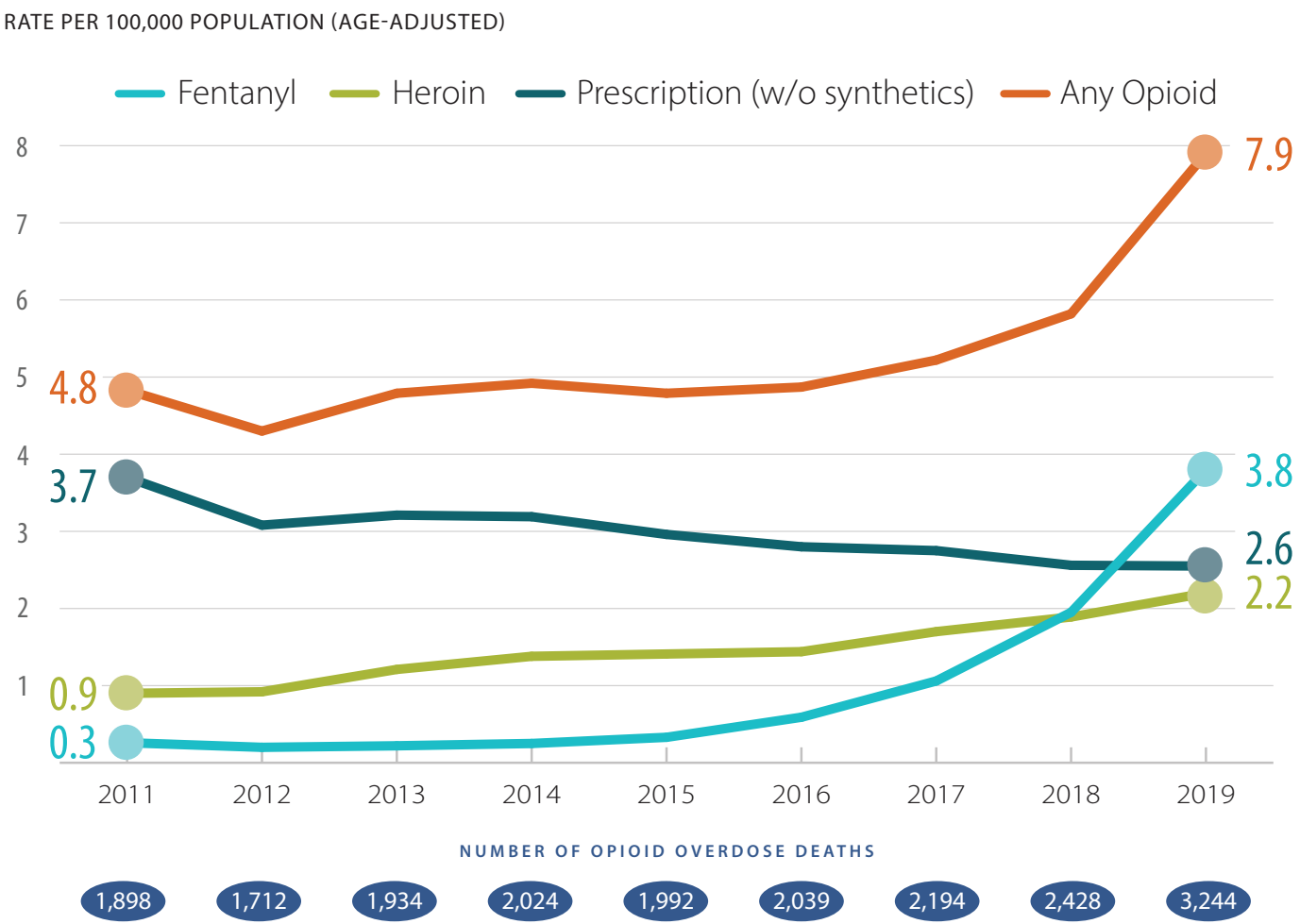


Notes: Data come from registered death certificates. Excludes deaths when age not indicated. *Drug-induced deaths* are drug poisonings (overdoses) with ICD-10 codes that cover suicide, homicide, and unintentional or undetermined poisoning. *Alcohol-induced deaths* include accidental or intended poisoning, in addition to other conditions directly induced by use of alcohol. *AIAN* is American Indian and Alaska Native; *ANHPI* is Asian, Native Hawaiian, and Pacific Islander. Source uses *Asian or Pacific Islander*, *Hispanic or Latino*, *American Indian or Alaska Native*, and *Black or African American*.

Source: "Underlying Cause of Death, 1999-2019," Centers for Disease Control and Prevention.

The rates of both alcohol- and drug-induced deaths were more than two times higher among males than females. Drug- and alcohol-induced death rates differed considerably by race/ethnicity, with American Indian and Alaska Native Californians having the highest rates and Asian, Native Hawaiian, and Pacific Islander Californians having the lowest. Black and White Californians had drug-induced death rates more than twice as high as Latinx Californians.

Opioid Overdose Deaths
by Opioid Type, California, 2011 to 2019



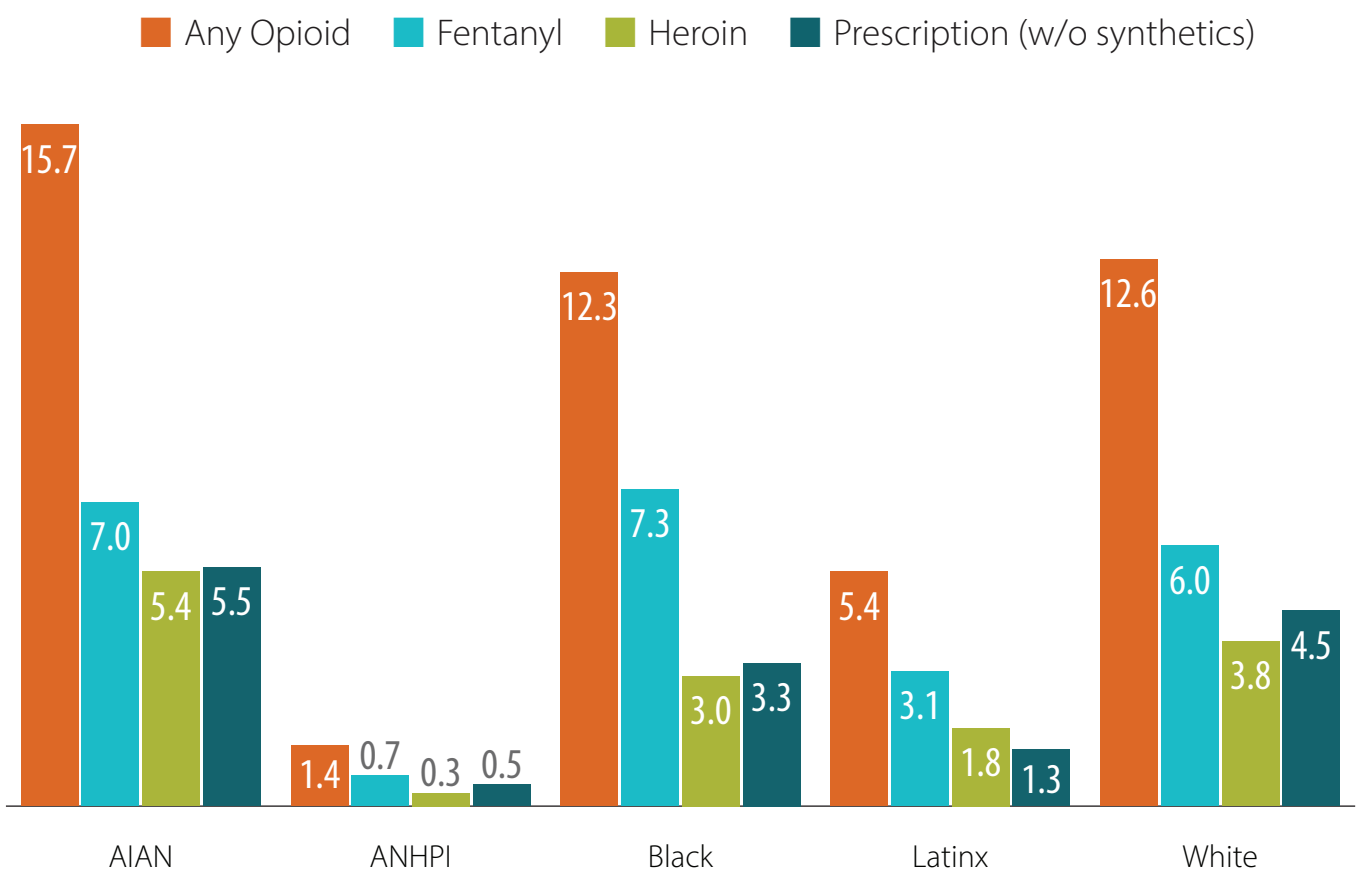
Notes: Deaths related to chronic use of drugs (e.g., damage to organs from long-term drug use) are excluded. Fentanyl is a strong synthetic opioid that may be prescribed or obtained illegally. *Fentanyl* includes acute poisoning deaths involving fentanyl or fentanyl analogs. *Heroin* includes acute poisoning deaths involving heroin. *Prescription (w/o synthetics)* includes acute poisoning deaths involving any opioid and prescribed opioid pain relievers such as hydrocodone, oxycodone, and morphine. It also includes methadone but excludes synthetic opioids such as fentanyl. *Any opioid* includes overdose deaths caused by acute poisonings that involve any opioid as a contributing cause of death regardless of intent. Includes prescriptions as well as heroin and opium.

Source: "California Overdose Surveillance Dashboard," California Dept. of Public Health.

In 2019, more than 3,200 Californians died from an opioid-related overdose. The death rate from fentanyl increased 10-fold, from 0.3 deaths per 100,000 population in 2015 to 3.8 deaths per 100,000 population in 2019. The rate of deaths from heroin increased steadily from 2011 to 2019, while the rate of prescription overdose deaths decreased by 30% over the same period.

Opioid Overdose Deaths
by Race/Ethnicity, California, 2019

RATE PER 100,000 POPULATION (AGE-ADJUSTED)



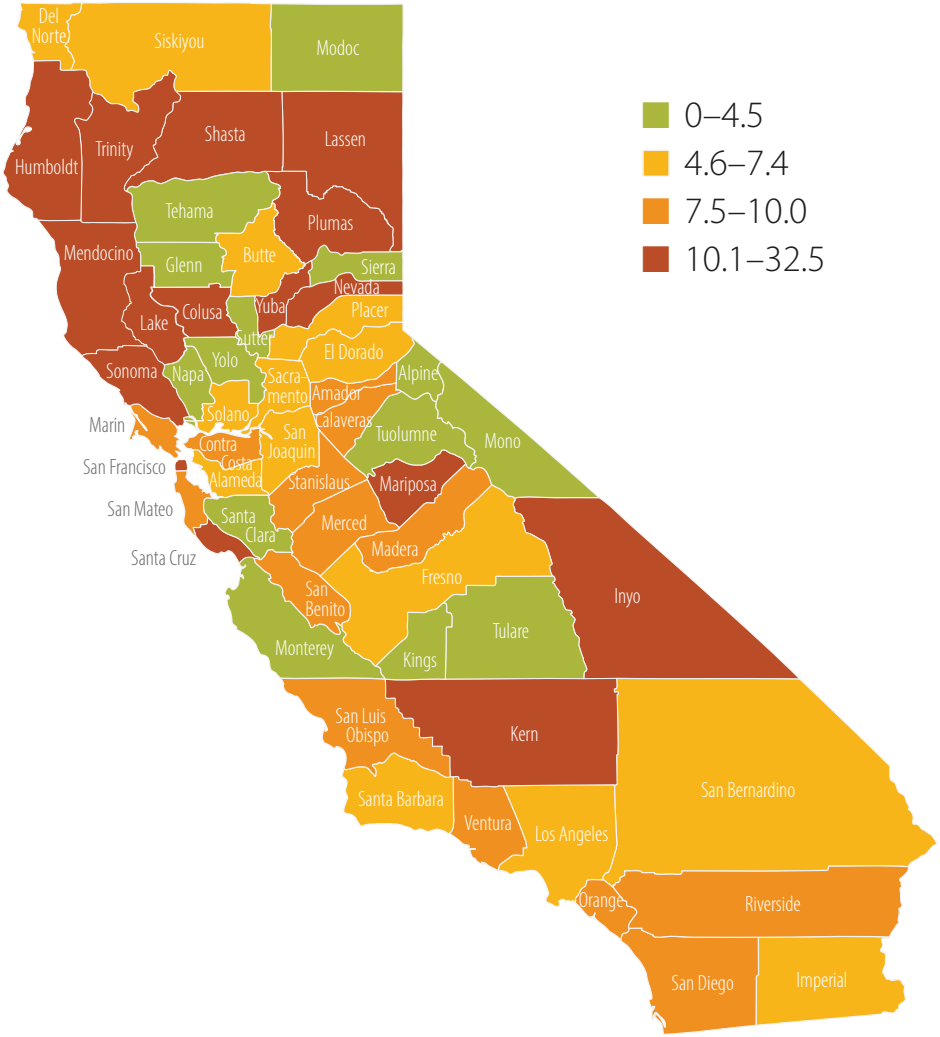
Notes: Deaths related to chronic use of drugs (e.g., damage to organs from long-term drug use) are excluded. Fentanyl is a strong synthetic opioid that may be prescribed or obtained illegally. *Fentanyl* includes acute poisoning deaths involving fentanyl or fentanyl analogs. *Heroin* includes acute poisoning deaths involving heroin. *Prescription (w/o synthetics)* includes acute poisoning deaths involving any opioid and prescribed opioid pain relievers such as hydrocodone, oxycodone, and morphine. It also includes methadone but excludes synthetic opioids such as fentanyl. *Any opioid* includes overdose deaths caused by acute poisonings that involve any opioid as a contributing cause of death regardless of intent. Includes both prescriptions as well as heroin and opium. *AIAN* is American Indian and Alaska Native. *ANHPI* is Asian, Native Hawaiian, and Pacific Islander. Source uses *Black / African American*, *Hispanic/Latino*, *Native American / Alaska Native*, and *Asian / Pacific Islander*.

Source: "California Overdose Surveillance Dashboard," California Dept. of Public Health.

In 2019, American Indian and Alaska Native Californians had the highest rate of opioid overdose deaths, followed by White and Black Californians. Fentanyl had the highest overdose death rate across all racial and ethnic groups.

Opioid Overdose Deaths
by County, California, 2019

RATE PER 100,000 POPULATION (AGE-ADJUSTED)



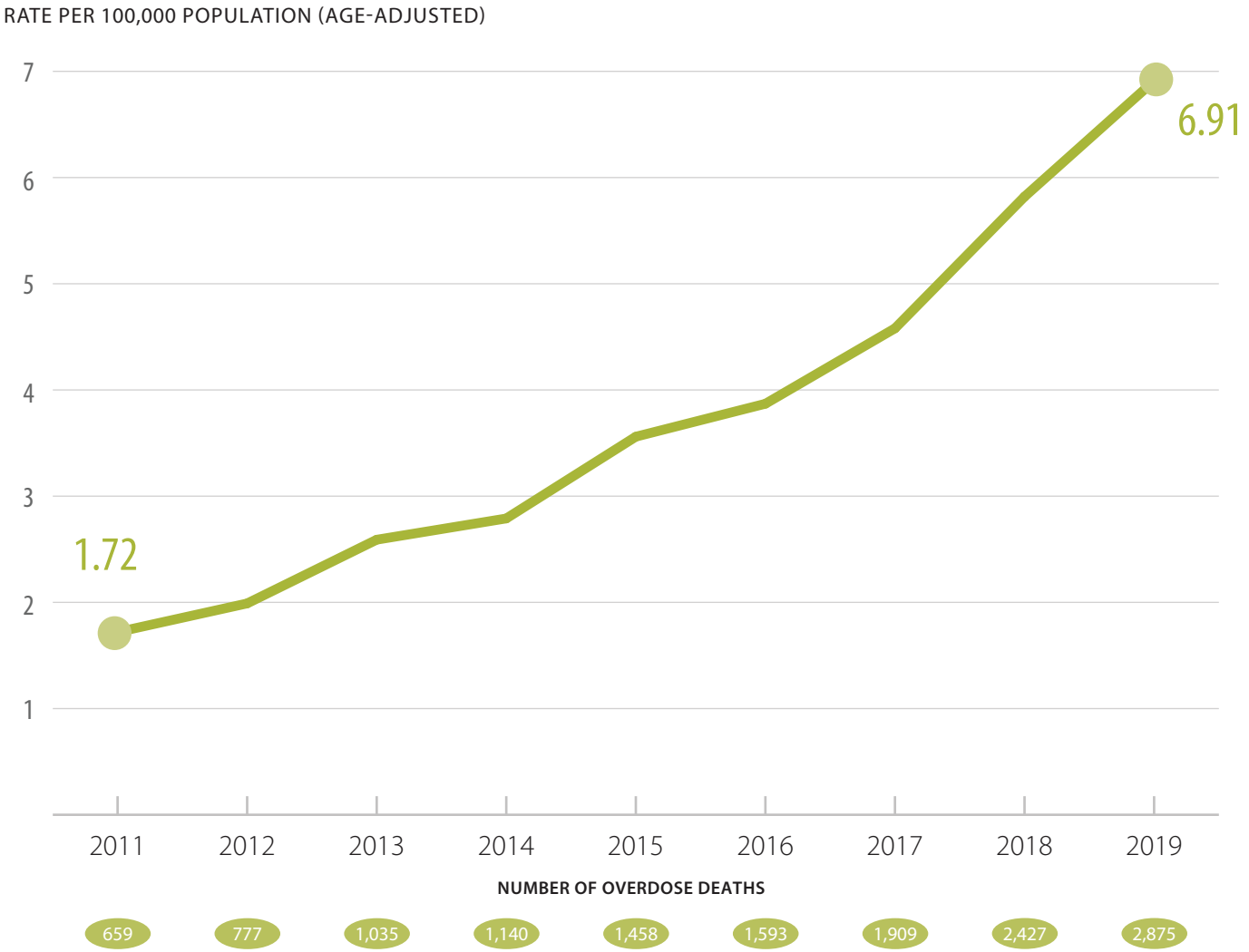
Notes: Includes overdose deaths caused by acute poisonings that involve any opioid as a contributing cause of death regardless of intent. Prescriptions as well as heroin and opium are included. Deaths related to chronic use of drugs are excluded. See Appendix B for detail by county.

Source: "California Overdose Surveillance Dashboard," California Dept. of Public Health.

Substance Use Disorders
Deaths

In 2019, some of the highest rates of opioid overdose deaths were in northern California counties. Lake County had the highest rate of overdose deaths (32 per 100,000), largely driven by prescription opioids, followed by San Francisco (27 per 100,000), where deaths were largely linked to fentanyl.

Psychostimulant Overdose Deaths
California, 2011 to 2019



Notes: Includes acute poisoning deaths involving psychostimulants with abuse potential such as methamphetamine, MDMA, dextroamphetamine, levoamphetamine, or Ritalin. Deaths related to chronic use of these drugs are excluded, as are deaths related to cocaine.

Source: "California Overdose Surveillance Dashboard," California Dept. of Public Health.

Deaths in California from overdoses of psychostimulants have increased rapidly, with the rate more than quadrupling between 2011 and 2019. In 2019, the number of psychostimulant overdose deaths approached that of opioid overdose deaths (not shown).

About Substance Use Disorder Treatment

Treatment for substance use disorders is composed of multiple service components. Some of these, which may be provided in outpatient or inpatient settings, include the following:

Behavioral Interventions

Motivational enhancement therapy helps people resolve their ambivalence about engaging in treatment and stopping drug use, in order to evoke internally motivated change.

Cognitive behavioral therapy teaches skills to identify and change problem behaviors and to address other life challenges that may influence use of substances.

Family therapy addresses a youth's substance use problems while considering family dynamics that may influence the youth's substance use and other risky behaviors.

Contingency management is often used to treat stimulant use disorder. Positive reinforcement — prizes, privileges, or cash — is provided for completing desired behaviors including remaining drug-free, attending counseling sessions, or taking medications as prescribed.

Medication-Assisted Treatment

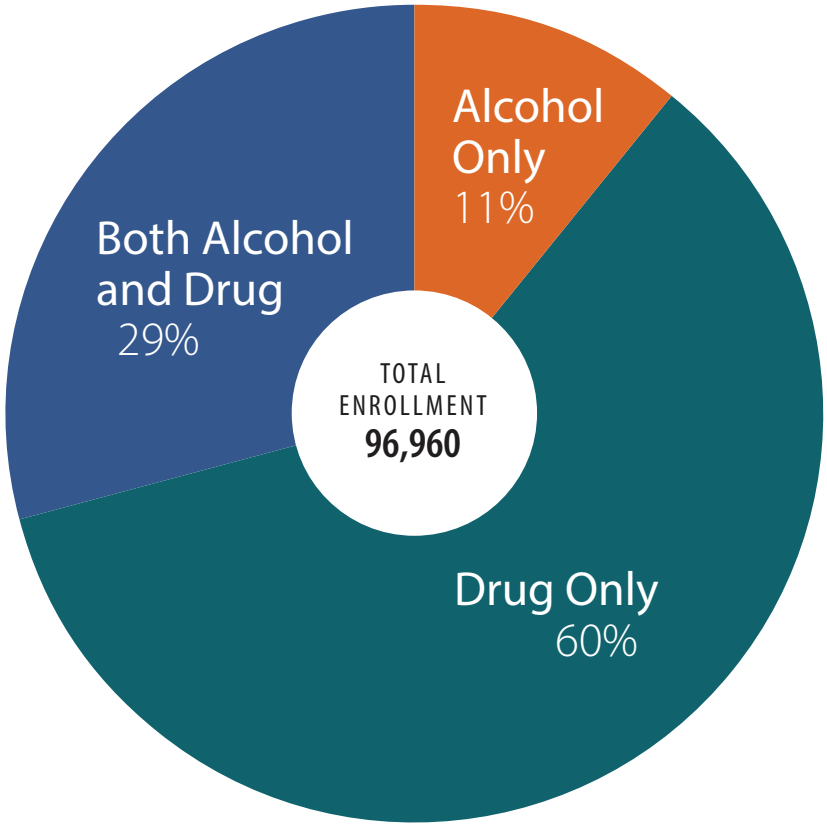
Medication-assisted treatment (MAT) is the use of FDA-approved medications, in combination with counseling and behavioral therapies, to treat opioid or alcohol use disorder. Methadone and buprenorphine are two commonly used medications to treat opioid addiction. Naltrexone is used to treat alcohol and opioid use disorder. MAT can be provided in office-based settings, hospitals, and narcotic treatment programs.

There are numerous approaches to treating substance use disorders (SUDs), depending on the primary substance being used and the severity of the SUD, as well as the preferences and needs of the person in treatment.

Sources: "Treatment and Recovery," National Institute on Drug Abuse; A. Thomas McLellan et al., "Drug Dependence, a Chronic Medical Illness: Implications for Treatment, Insurance, and Outcomes Evaluation," *JAMA* 284, no. 13 (Oct. 4, 2000): 1689–95; "Medication-Assisted Treatment," Substance Abuse and Mental Health Services Administration (SAMHSA), last updated January 4, 2021; and *Treatment of Stimulant Use Disorders*, SAMHSA, June 2020.

Substance Use Treatment
by Drug Type, California, 2019

SINGLE-DAY COUNT



For every 10 people in treatment for substance use in California, 6 received treatment for drug use only, 3 for both alcohol and other drugs, and 1 for alcohol only.

Notes: Single-day counts reflect the number of people enrolled in substance use treatment on March 29, 2019. Enrollees whose substances were unknown were excluded.

Source: *Behavioral Health Barometer: California, Volume 6*, Substance Abuse and Mental Health Services Administration, December 28, 2020.

California Medication Assisted Treatment Expansion Project

Medication-assisted treatment (MAT) is the use of FDA-approved medications, in combination with counseling and behavioral therapies, to treat opioid or alcohol use disorders. California is in the process of implementing major expansions in MAT access using federal grants.

In 2017, the California Department of Health Care Services launched the Medication Assisted Treatment (MAT) Expansion Project to increase access to MAT for opioid use disorder, reduce unmet treatment need, and reduce opioid overdose deaths. The project is funded by grants from the Substance Abuse and Mental Health Services Administration totaling $475 million through September 2022. The MAT Expansion Project includes prevention, treatment, and recovery activities and targets special populations with limited MAT access, including youth, rural residents, and tribal communities.

The project seeks to expand access to MAT and substance use disorder (SUD) recovery services in clinical settings, including primary care and emergency departments; specialized SUD treatment programs; and county and state criminal justice systems. It also includes other activities such as media campaigns, naloxone distribution, drug take-back programs, engagement with local opioid safety coalitions, prescriber education, improvement of the state's prescription drug monitoring database, and supportive housing.

California MAT Expansion Project Impact as of October 2021

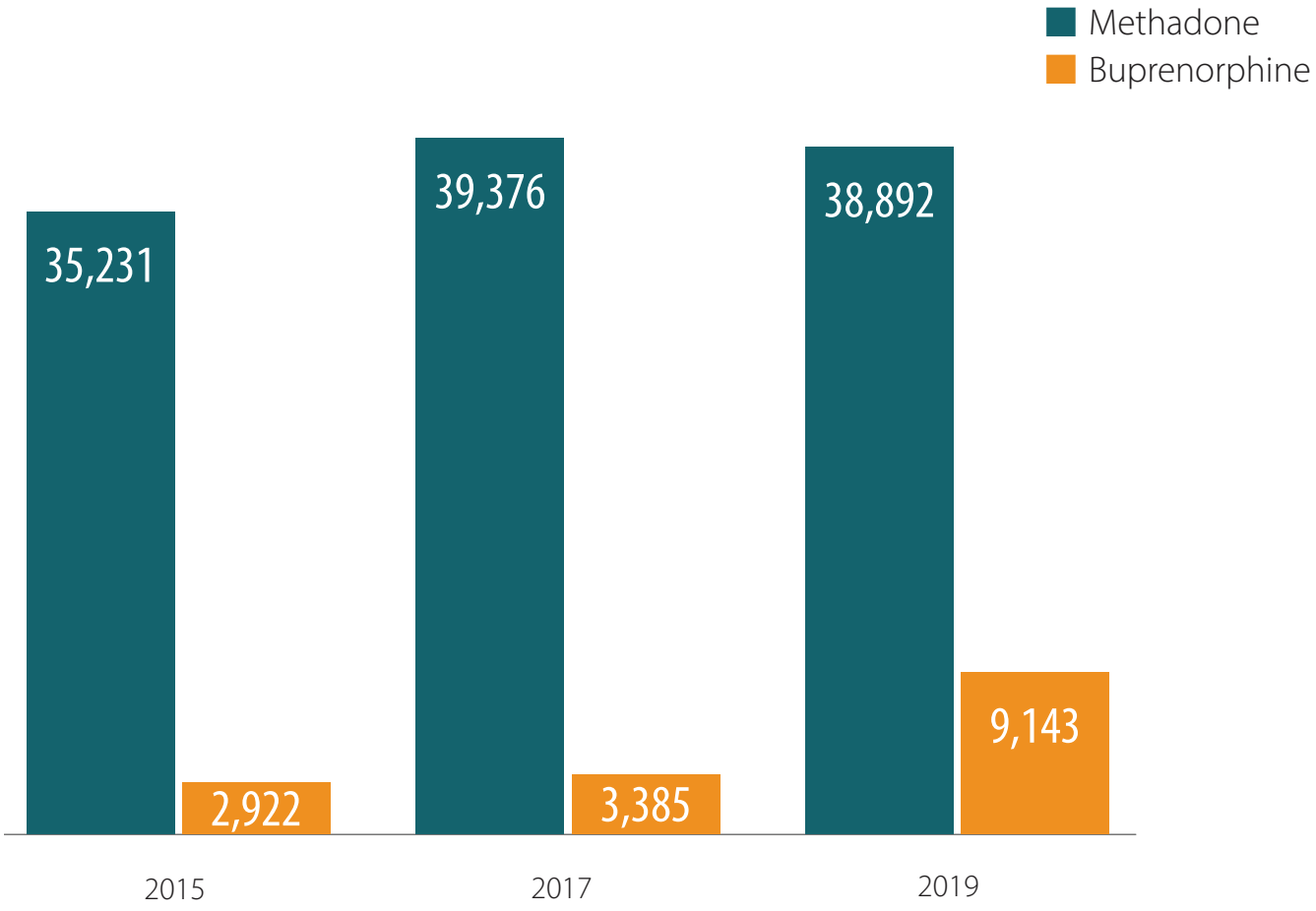
- Provided support to more than 30 projects
- Expanded access to MAT in more than 650 access points
- Treated 88,000 new patients with opioid use disorder
- Distributed more than 910,000 units of naloxone, a drug that can reverse opioid overdoses
- Reversed 47,000 opioid overdoses

Source: "California MAT Expansion Project," California Dept. of Health Care Services, accessed November 16, 2021.

Medication-Assisted Treatment, by Type

California, 2015, 2017, and 2019

SINGLE-DAY COUNT



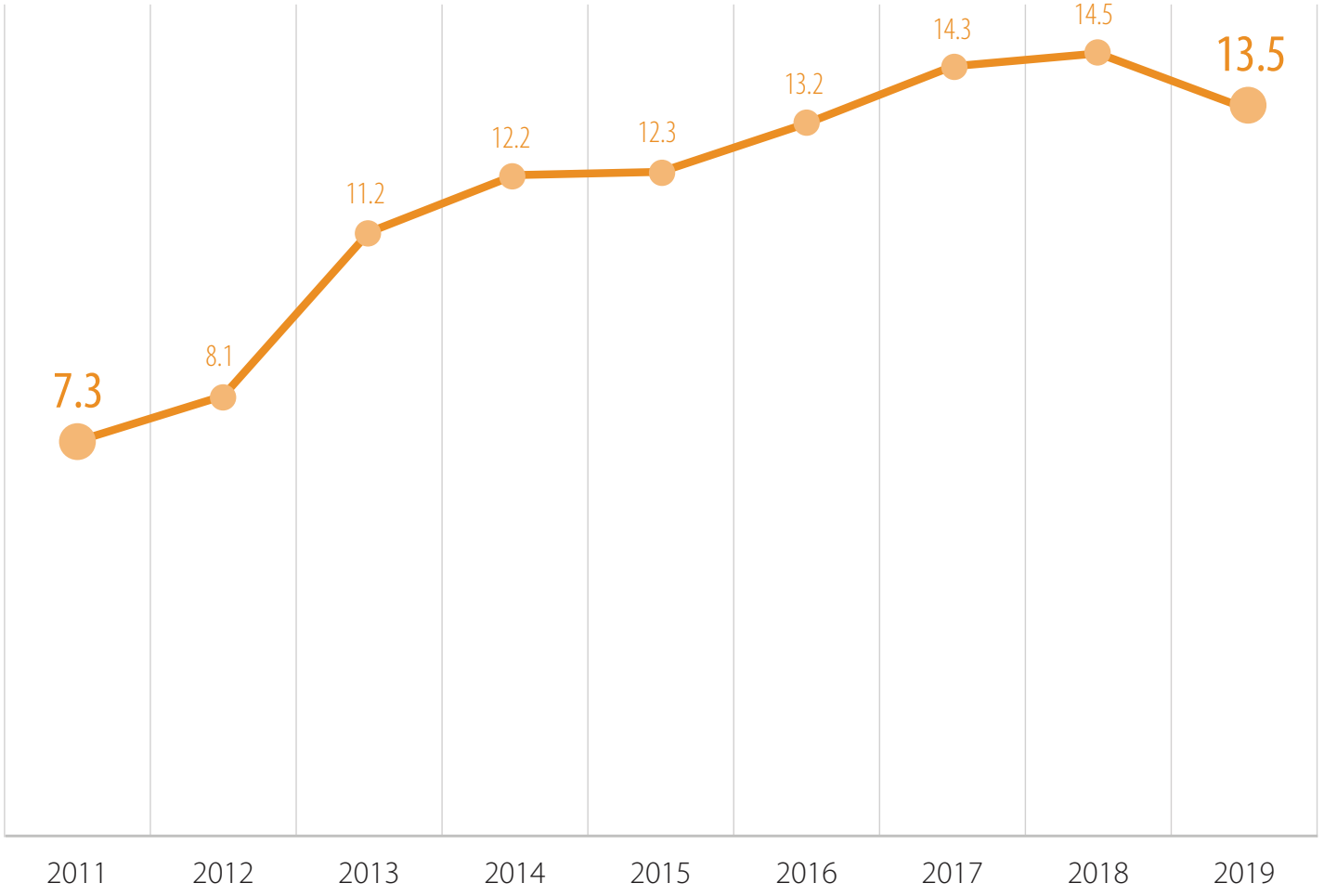
Notes: Methadone and buprenorphine are FDA-approved medications commonly used in medication-assisted treatment for those with opioid use disorders. Single-day counts reflect the number of people enrolled in substance use treatment on March 31, 2015; March 31, 2017; and March 29, 2019. Single-day counts include the number of people prescribed these medications through substance use treatment programs and do not include those who may have been prescribed these medications by physicians in a private practice.

Source: *Behavioral Health Barometer: California, Volume 6*, Substance Abuse and Mental Health Services Administration, December 28, 2020.

Methadone is more commonly used than buprenorphine to treat opioid use disorder. Between 2015 and 2019, the use of buprenorphine, another medication for opioid use disorder, by people enrolled in substance use treatment programs more than tripled.

Buprenorphine Prescriptions
California, 2011 to 2019

PER 100,000 POPULATION (AGE-ADJUSTED)



Note: Buprenorphine is an FDA-approved medication commonly used in medication-assisted treatment for those with opioid use disorders.

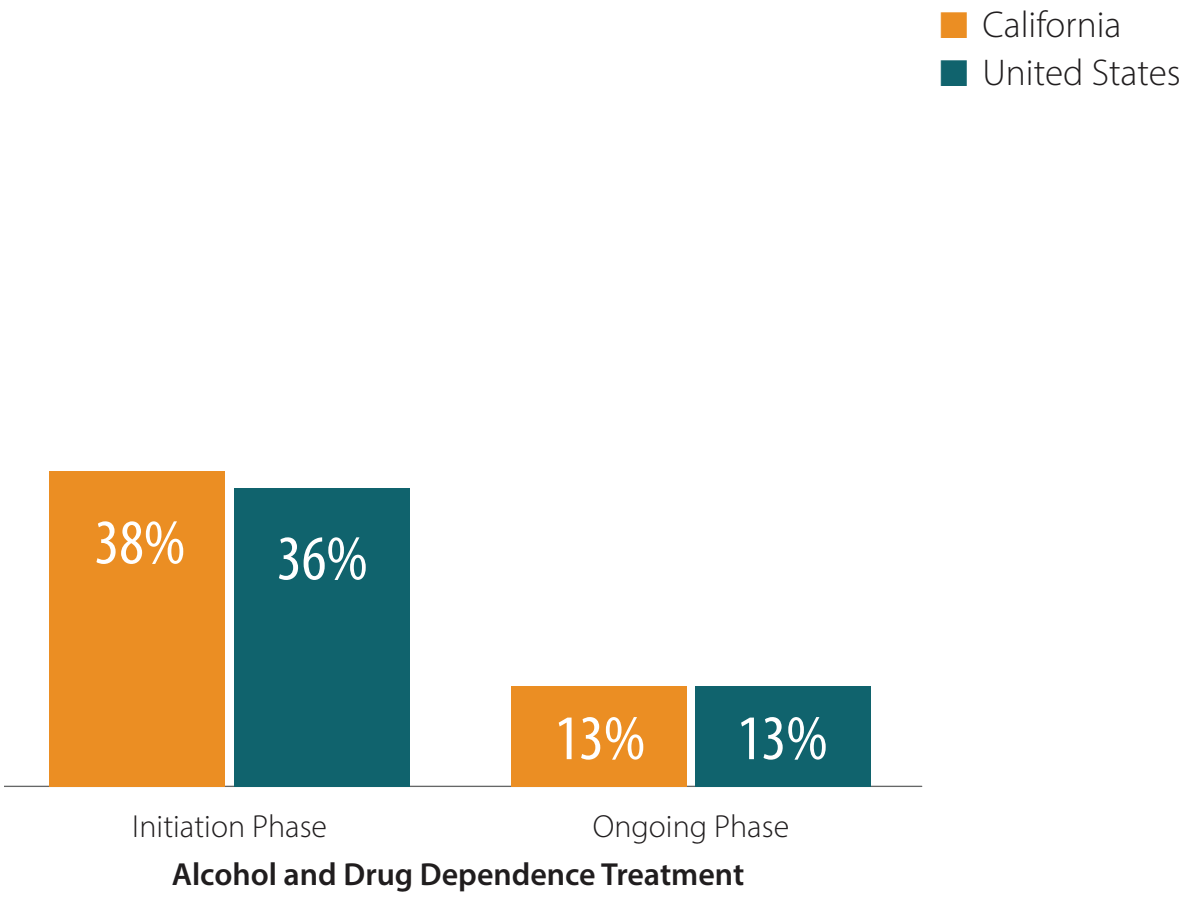
Source: "California Overdose Surveillance Dashboard," California Dept. of Public Health.

The rate of buprenorphine prescriptions in California nearly doubled between 2011 and 2019. More physicians received authorization to prescribe buprenorphine to treat people with opioid use disorder, and access to medication-assisted treatment expanded throughout the state.

Alcohol and Drug Dependence Treatment

Commercial HMO and PPO Plans, California vs. United States, 2019

PERCENTAGE OF MEMBERS WITH A NEW EPISODE OF ALCOHOL OR DRUG DEPENDENCE WHO RECEIVED TREATMENT

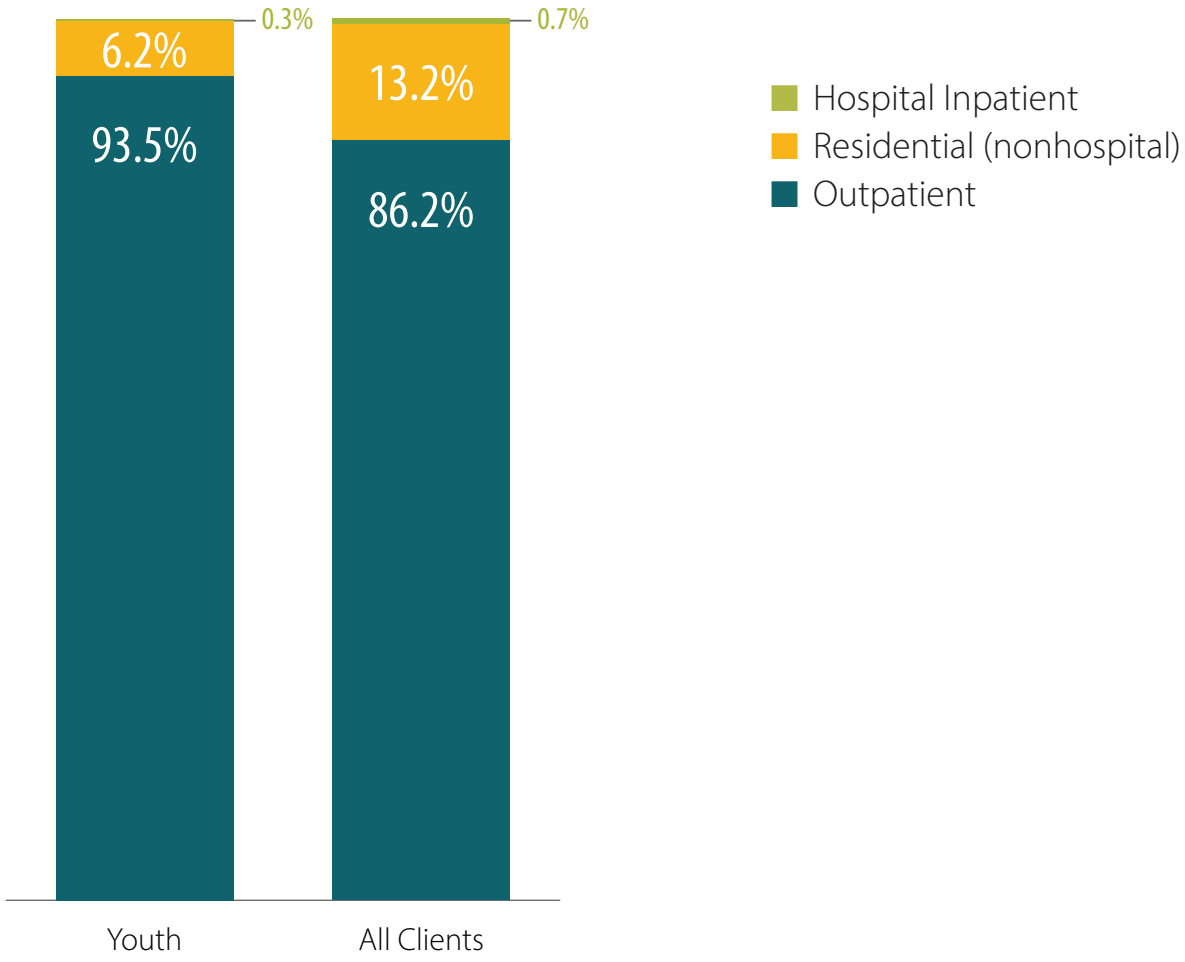


Notes: *Initiation phase* shows the percentage of adolescent or adult patients with an alcohol or drug dependence diagnosis that started treatment services within 14 days of being diagnosed. *Ongoing phase* shows the percentage of patients with an alcohol or drug dependence diagnosis that had an initial treatment and at least two follow-up treatment services with 30 days of their initial treatment.

Source: "California Health Plans Compared to Health Plans Nationwide," Office of the Patient Advocate.

Few commercial HMO and PPO health plan members received alcohol or drug dependence treatment consistent with National Committee for Quality Assurance standards for quality of care. Approximately two in five California members with an alcohol or other drug dependence diagnosis had an initial treatment visit within 14 days of diagnosis, and only one in eight received ongoing care (at least two follow-up visits within 30 days of initial treatment). California and the US had similar rates.

Clients in Substance Use Disorder Treatment
by Level of Care, California, 2019



In California, the majority of clients in substance use disorder (SUD) treatment (86%) received outpatient services, including 94% of youth clients. Thirteen percent of clients received residential care and less than 1% received hospital care.

Notes: The Substance Abuse and Mental Health Services Administration (SAMHSA) administers this annual survey to public and private alcohol and drug abuse treatment facilities, collecting data for a designated point in time (March 29, 2019). The California survey rate of response for 2019 was 84.6%. *Youth* is under age 18. Figures may not total 100% due to rounding.

Source: *National Survey of Substance Abuse Treatment Services (N-SSATS): 2019 — Data on Substance Abuse Treatment Facilities*, SAMHSA, July 2020.

Treatment Facilities and Programs

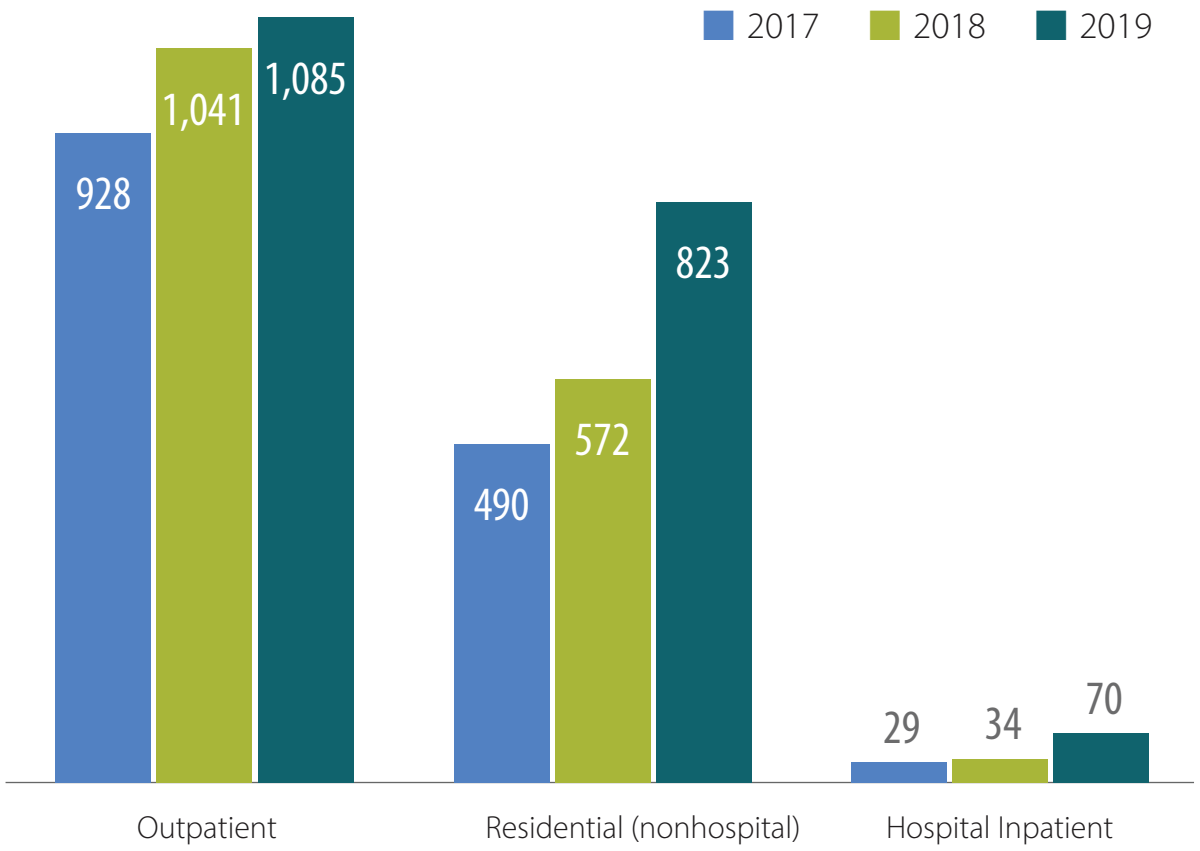
- **Outpatient** substance use disorder (SUD) treatment and recovery services are provided in primary care offices, community clinics, substance use treatment clinics, and other settings for patients who do not require hospitalization.
- **Residential programs** (nonhospital) provide clinically managed SUD treatment and recovery services in a 24-hour supportive living setting.
- **Detoxification** includes clinical management of the withdrawal process in a 24-hour residential or hospital setting.
- **Hospital inpatient** includes SUD treatment or detoxification services in general acute care hospitals, psychiatric acute care hospitals, and chemical dependency recovery hospitals.
- **Narcotic treatment programs** provide narcotic replacement therapy and administer methadone. Narcotic replacement therapy is administered as part of a comprehensive treatment program including medical evaluation and counseling for medical, alcohol, criminal, and psychological problems.

Substance use disorder (SUD) treatment services are provided in inpatient, outpatient, and residential settings, spanning the continuum of care for SUD treatment as defined by the American Society for Addiction Medicine.

Note: For corresponding American Society of Addition Medicine levels of care, see Appendices C and D.

Substance Use Disorder Treatment Facilities
by Type of Care, California, 2017 to 2019

NUMBER OF FACILITIES

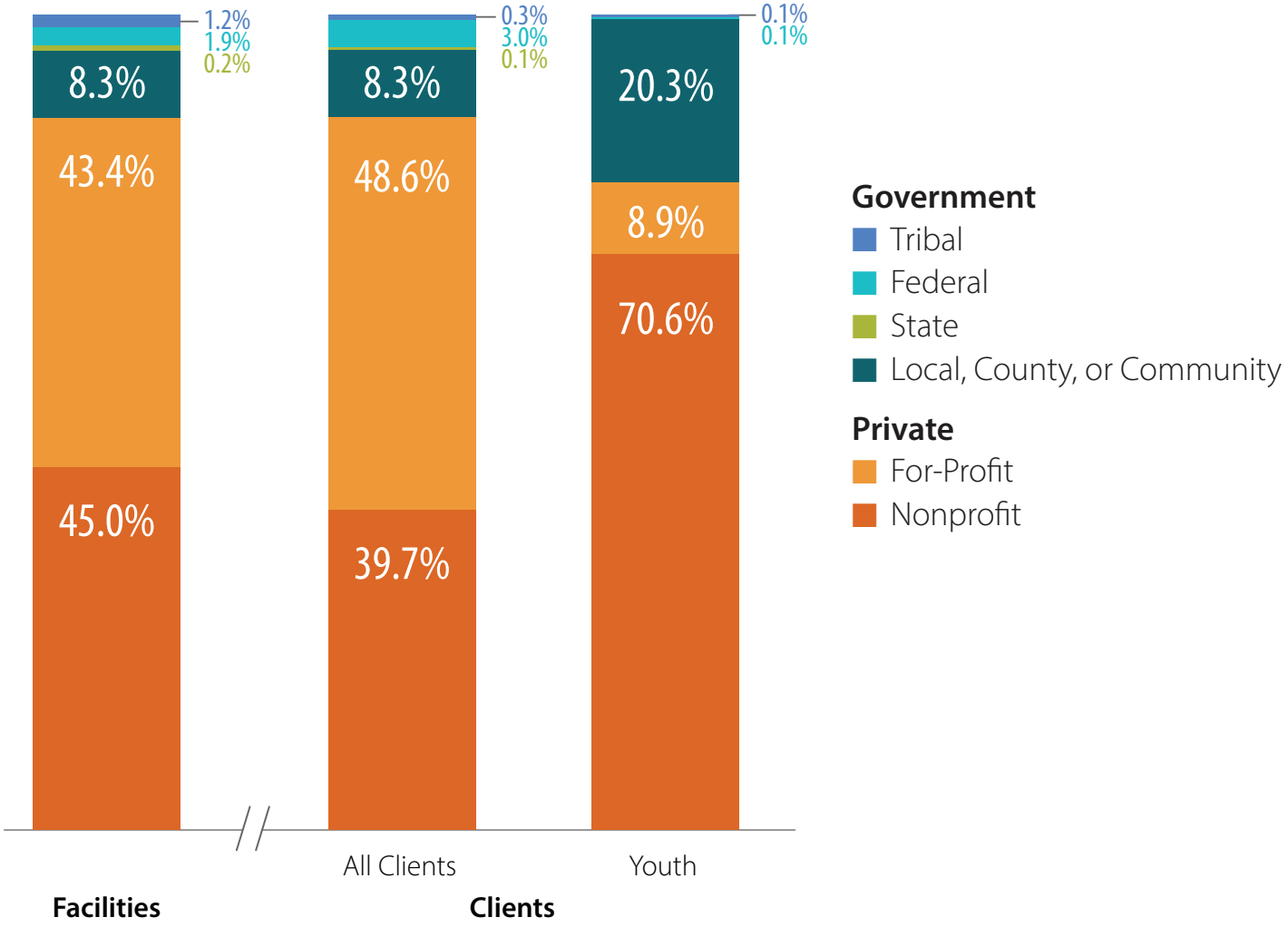


Notes: The Substance Abuse and Mental Health Services Administration (SAMHSA) administers this annual survey to public and private alcohol and drug abuse treatment facilities, collecting data for a designated point in time. The California survey response rate was 87.6% in 2017, 90.9% in 2018, and 84.6% in 2019. A facility may provide more than one type of care. *SUD* is substance use disorder. See Appendix E for a description of California SUD treatment programs and services.

Sources: *National Survey of Substance Abuse Treatment Services (N-SSATS): 2017 — Data on Substance Abuse Treatment Facilities*, SAMHSA, July 2018; *National Survey of Substance Abuse Treatment Services (N-SSATS): 2018 — Data on Substance Abuse Treatment Facilities*, SAMHSA, September 2019; and *National Survey of Substance Abuse Treatment Services (N-SSATS): 2019 — Data on Substance Abuse Treatment Facilities*, SAMHSA, July 2020.

The number of California substance use disorder treatment facilities offering each type of care — outpatient, residential, and hospital inpatient — increased from 2017 to 2019. The number of facilities offering residential care increased by 68%, and the number of facilities offering hospital inpatient care more than doubled.

Substance Use Disorder Treatment Facilities and Clients in Treatment, by Owner Type, California, 2019

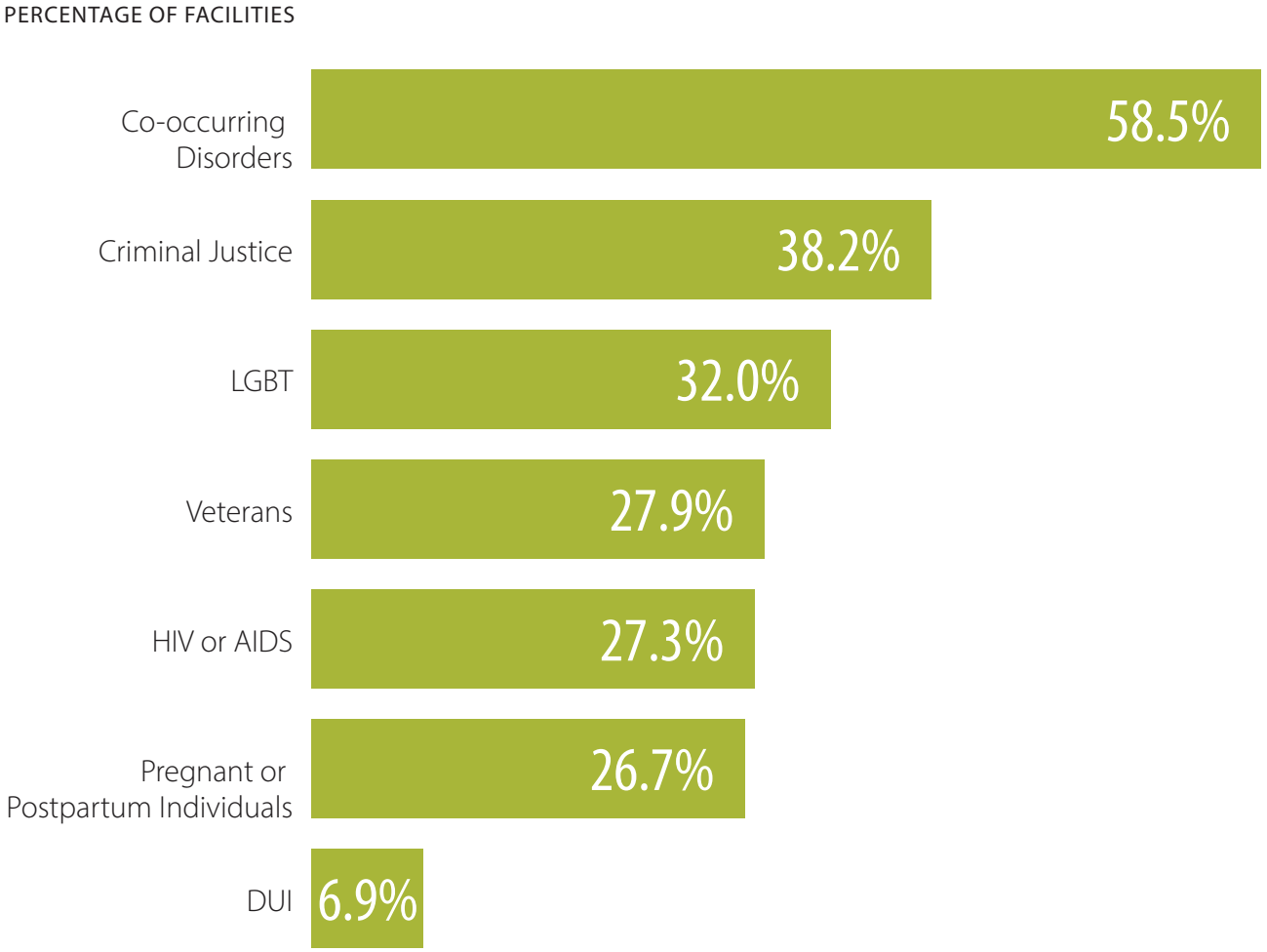


Notes: The Substance Abuse and Mental Health Services Administration (SAMHSA) administers this annual survey to public and private alcohol and drug abuse treatment facilities, collecting data for a designated point in time (March 29, 2019). The California survey rate of response for 2019 was 84.6%. *Youth* is under age 18. Figures may not total 100% due to rounding.

Source: *National Survey of Substance Abuse Treatment Services (N-SSATS): 2019 — Data on Substance Abuse Treatment Facilities*, SAMHSA, July 2020.

In 2019, the majority of California substance use disorder treatment facilities (88%) were privately owned. Local, county, and community government–operated facilities accounted for 8% of total facilities, 8% of all clients, and 20% of youth clients. Youth were more likely to be treated in nonprofit private facilities (71%) than clients overall (40%).

Substance Use Disorder Treatment Facilities, Programs Offered, by Selected Client Types, California, 2019

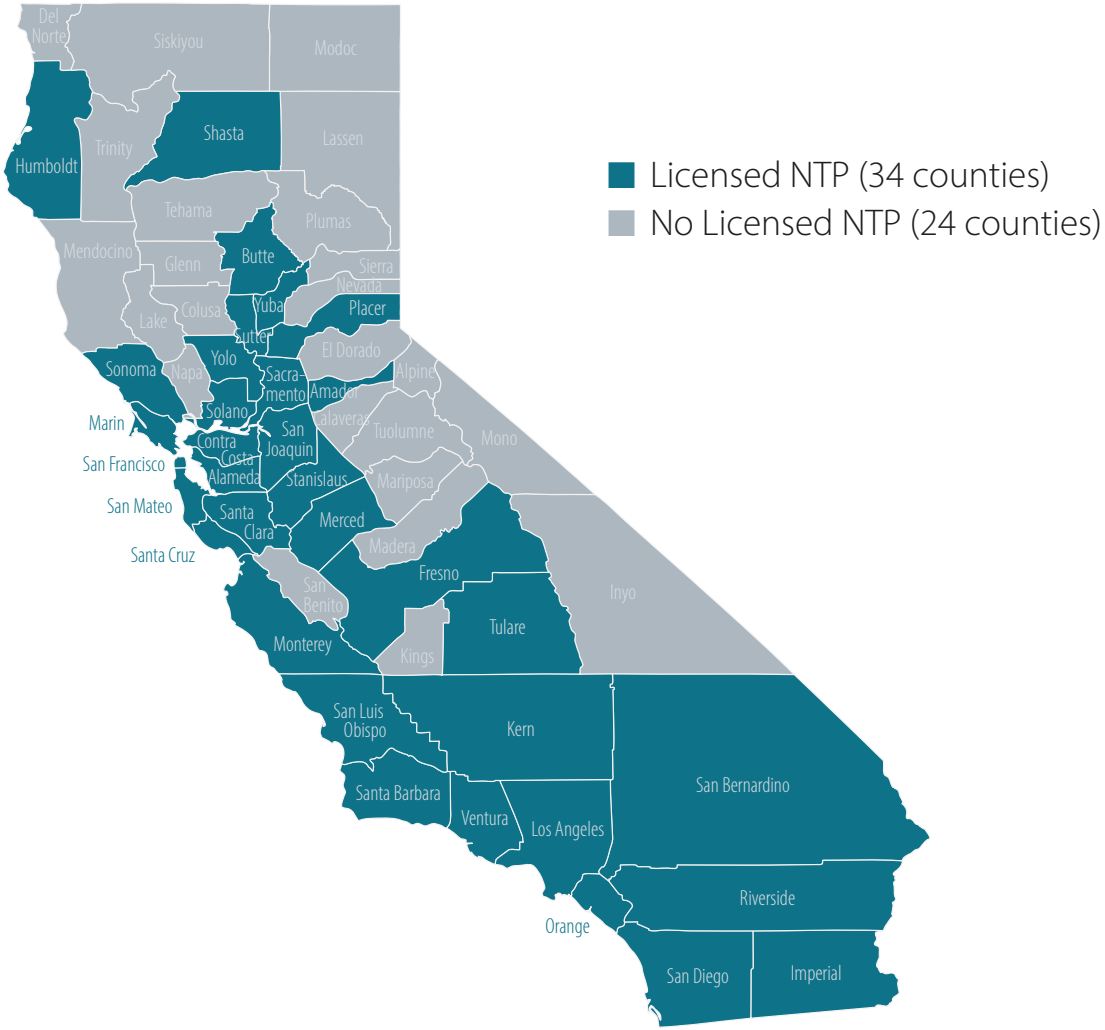


Notes: The Substance Abuse and Mental Health Services Administration (SAMHSA) administers this annual survey to public and private alcohol and drug abuse treatment facilities, collecting data for a designated point in time (March 29, 2019). The California survey response rate was 84.6% in 2019. A facility may provide more than one type of care. *Co-occurring disorders* refers to co-occurring mental illness and substance use disorders.

Source: *National Survey of Substance Abuse Treatment Services (N-SSATS): 2019 — Data on Substance Abuse Treatment Facilities*, SAMHSA, July 2020.

In 2019 nearly 60% of California's substance use disorder treatment facilities had programs tailored for clients diagnosed with co-occurring mental illness and substance use disorders, and nearly 40% had programs for clients involved in the criminal justice system.

Licensed Narcotic Treatment Programs
by County, California, 2020



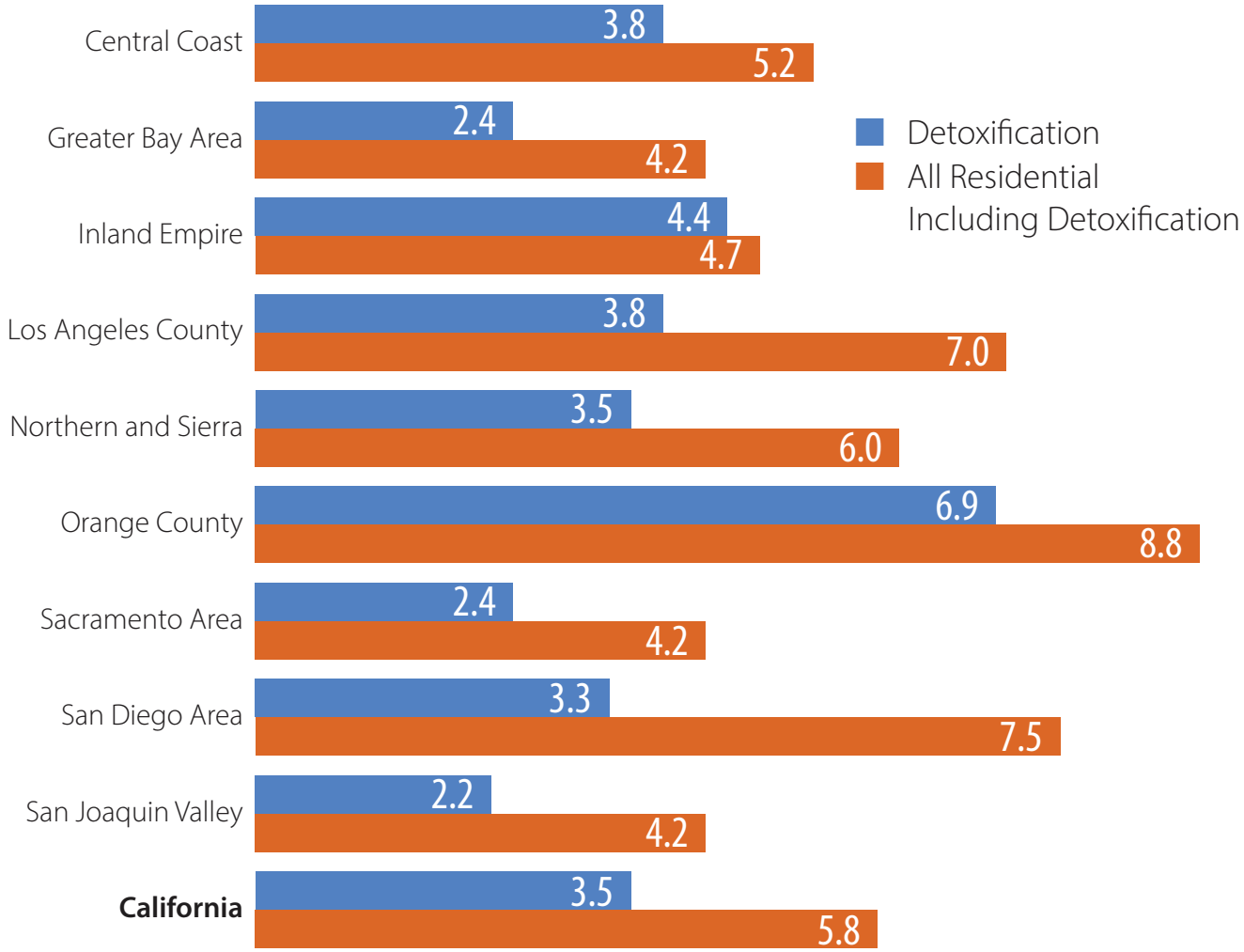
Notes: Only narcotic treatment programs (NTPs) licensed by the California Department of Health Care Services, with approval from the US Drug Enforcement Administration and the Substance Abuse and Mental Health Services Administration, may provide narcotic replacement therapy to administer methadone. Narcotic replacement therapy is administered as part of a comprehensive treatment program including a medical evaluation and counseling for medical, alcohol, criminal, and psychological problems. Patients undergo regular urinalysis to ensure that illicit drugs are not being used during treatment. See Appendix F for the NTP program slots in each county.

Sources: Author analysis based on *State of California Narcotic Treatment Program Directory*, California Dept. of Health Care Services, December 22, 2020; and *Report P-1A: Total Estimated and Projected Population for California: July 1, 2010 to July 1, 2060 in 1-year Increments* (2019), California Dept. of Finance, January 2020.

Narcotic treatment programs (NTPs) provide opioid medication-assisted treatment as well as detoxification and/or maintenance treatment services. NTPs are the only settings licensed to provide methadone treatment. People who receive methadone treatment typically attend NTPs every day — so proximity and access are critical. In 2020, 24 counties in California did not have NTPs.

Residential Treatment Facility Capacity
by Region, California, 2020

BEDS PER 10,000 ADULT POPULATION



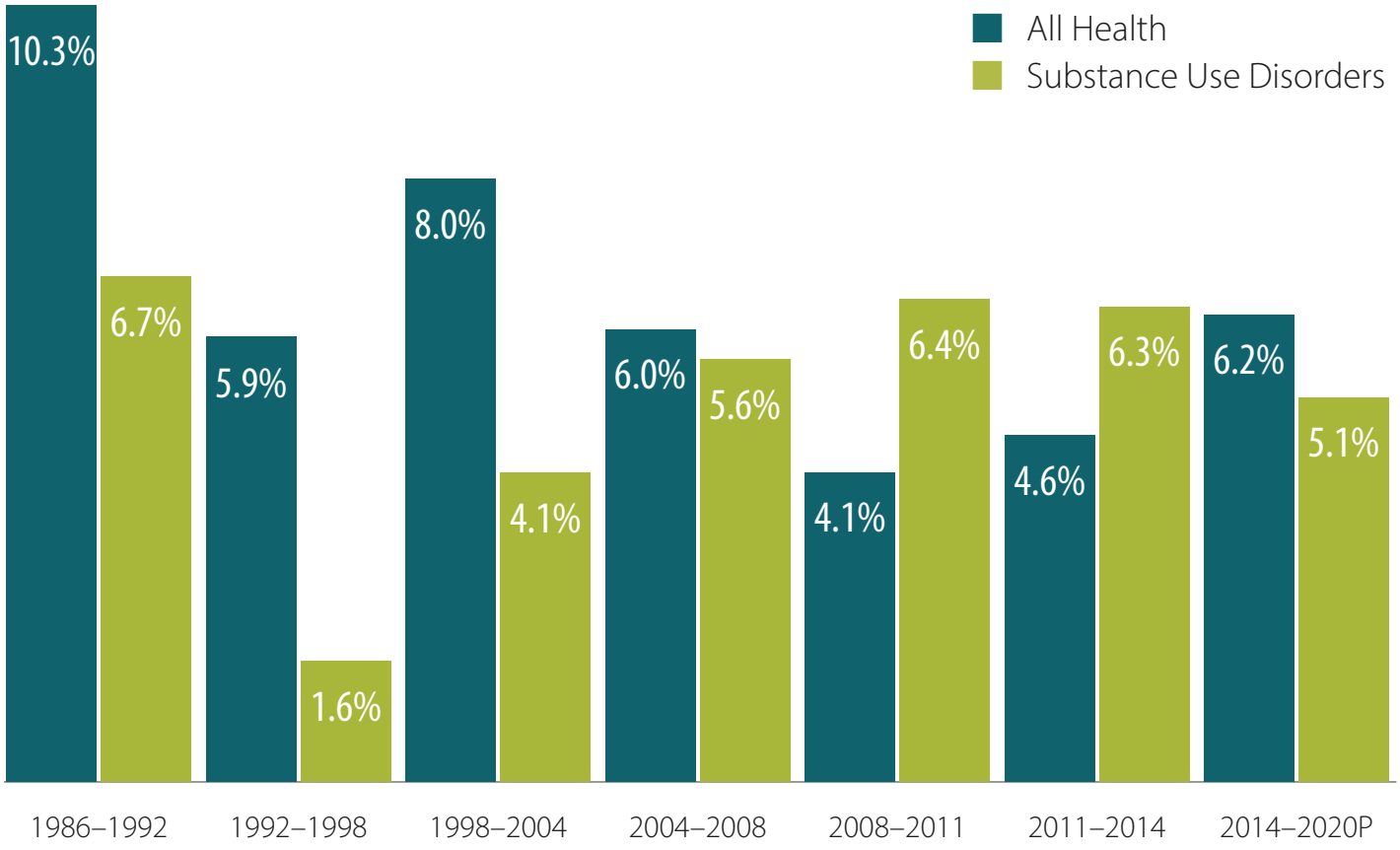
Notes: Includes nonmedical recovery or treatment facilities for SUD and AUD licensed and/or certified by the California Department of Health Care Services (DHCS). *Residential* beds provide recovery services corresponding to American Society of Addition Medicine (ASAM) levels 3.1, 3.3, and 3.5. *Detoxification* beds correspond to ASAM level 3.2-WM and provide clinical management of the withdrawal process. See Appendix C for more detail on ASAM levels. As of 2018, residential facilities, with approval from DHCS, may provide incidental medical services associated with detoxification, treatment, or recovery services. See Appendix G for a list of counties within each region.

Sources: Author calculations based on *DHCS Licensed Residential Facilities and/or Certified Alcohol and Drug Programs*, DHCS, accessed January 2021; and *Report P-2B: Population Projections by Individual Year of Age, California Counties, 2010-2060*, California Dept. of Finance, July 2021.

The California Department of Health Care Services licenses nonmedical residential facilities that provide recovery and treatment services to adults with substance use and alcohol use disorders. Regional capacity for residential services varied considerably. Orange County, the San Diego area, and Los Angeles County had the most residential treatment beds per population.

All Health and Substance Use Disorder Treatment Expenditure Growth, United States, 1986 to 2020

AVERAGE ANNUAL GROWTH

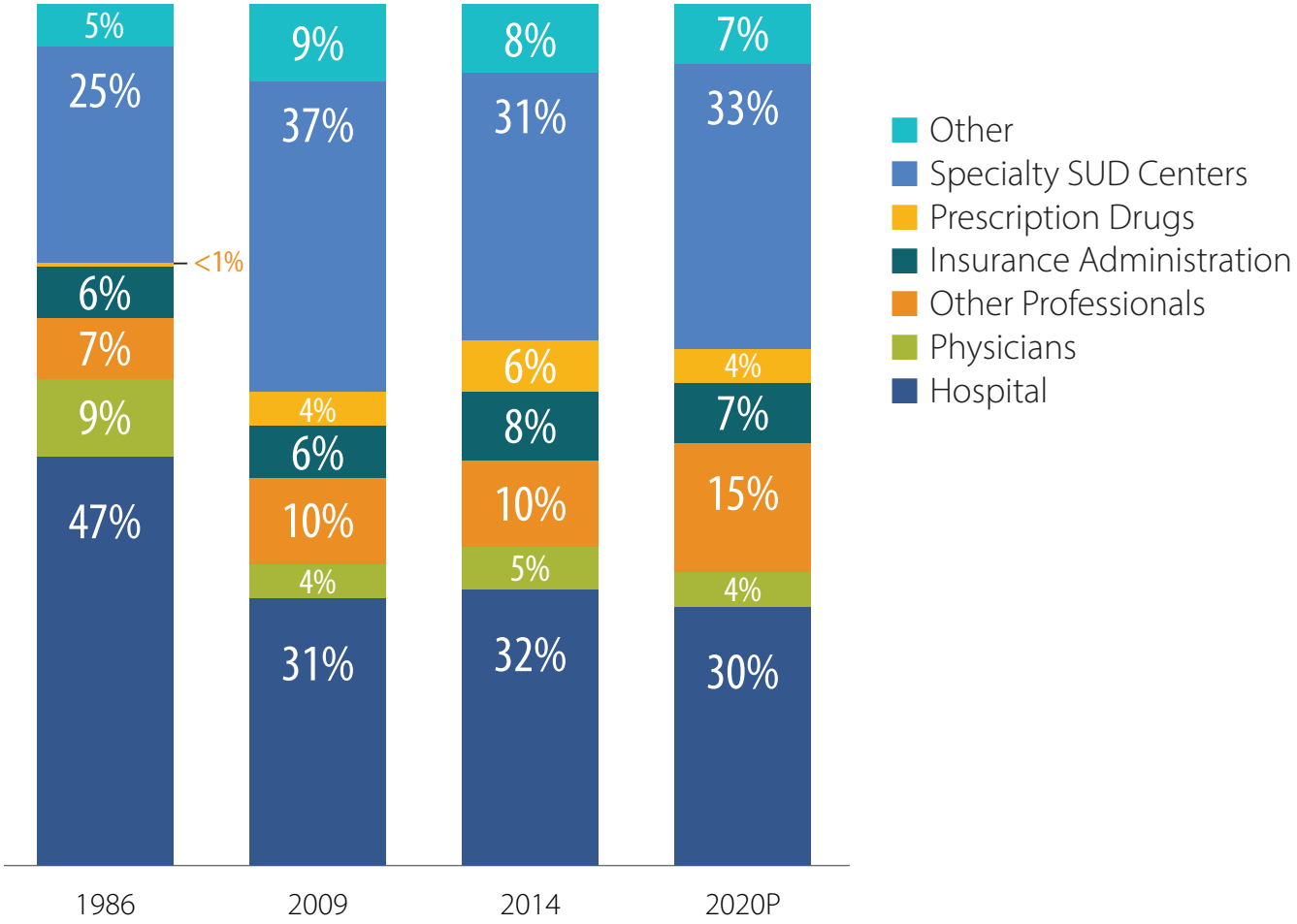


Notes: Estimates of treatment expenditures for substance use disorder include expenditures for clinical treatment and rehabilitative services and medications, and exclude both peer support services and activities to prevent substance abuse. Projections, shown as *P*, incorporate expansion of coverage through the Affordable Care Act, implementation of the provisions of behavioral health parity regulations, and expectations about the expiration of patents for certain psychotropic medications.

Sources: *Behavioral Health Spending and Use Accounts, 1986–2014* (PDF), Substance Abuse and Mental Health Services Administration (SAMHSA), 2016, table A.8; and *Projections of National Expenditures for Treatment of Mental and Substance Use Disorders, 2010–2020*, SAMHSA, 2014, table A.4.

Nationally, from 1986 to 2008, estimated expenditures for substance use disorder (SUD) treatment grew more slowly than did total health care expenditures. From 2014 to 2020, SUD and all health expenditures are projected to grow at similar rates.

Substance Use Disorder Treatment Expenditures, by Service Category, United States, 1986 to 2020, Selected Years



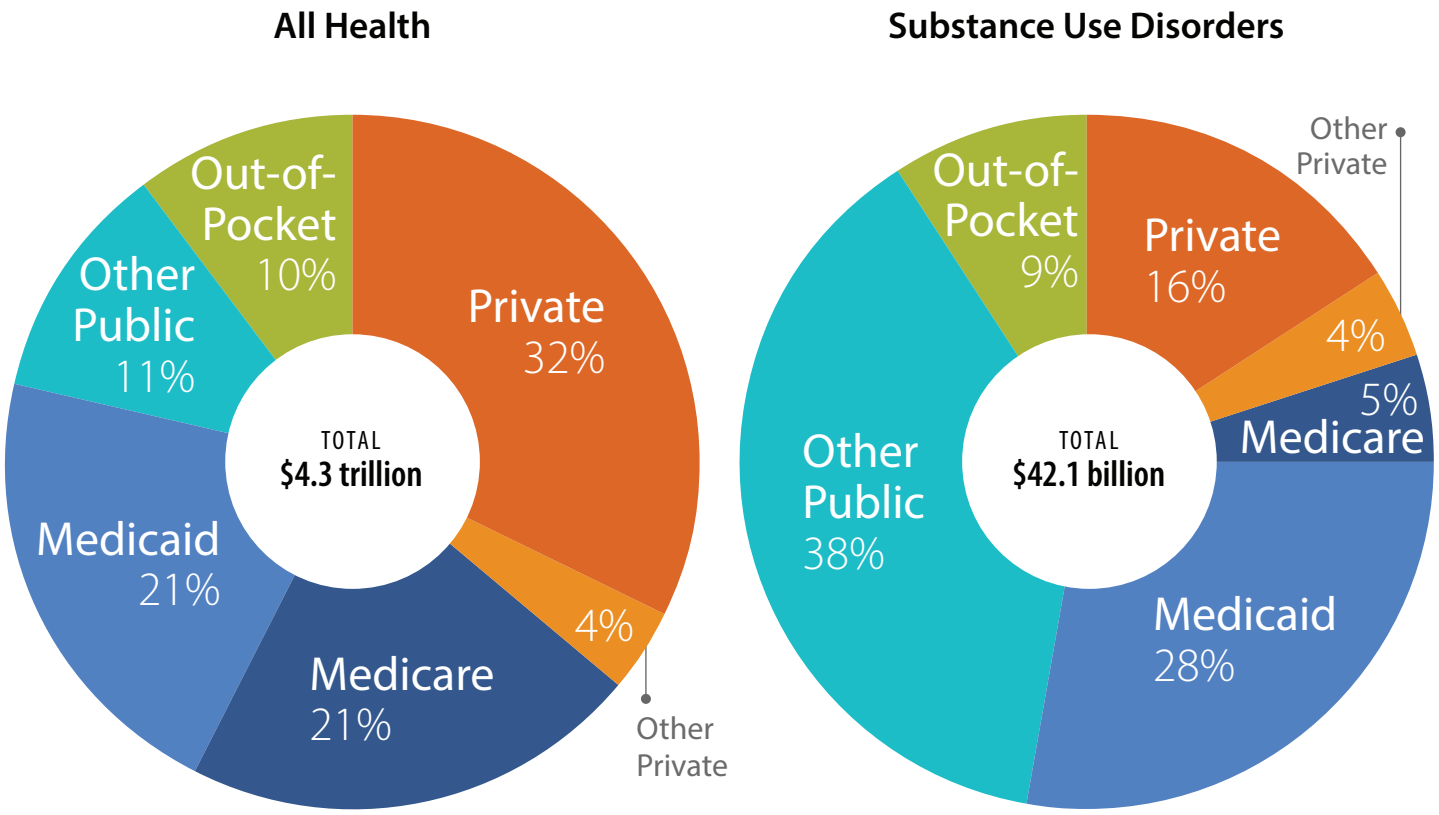
Notes: *SUD* is substance use disorder. Projections shown with *P*. Estimates of treatment expenditures for substance use disorder include expenditures for clinical treatment and rehabilitative services and medications, and exclude both peer support services and activities to prevent substance abuse. *Other* includes freestanding nursing homes, freestanding home health, and specialty mental health centers. Figures may not total 100% due to rounding.

Sources: *Behavioral Health Spending and Use Accounts, 1986–2014* (PDF), Substance Abuse and Mental Health Services Administration (SAMHSA), 2016, table A.6; and *Projections of National Expenditures for Treatment of Mental and Substance Use Disorders, 2010–2020*, SAMHSA, 2014, table A.3.

The distribution of spending on substance use disorder (SUD) treatment changed between 1986 and 2009. Hospital expenditures dropped from 47% of total SUD spending to 31%, while the share of spending for specialty SUD centers increased during the same period. Since 2009, spending by service category has remained largely stable.

All Health and Substance Use Disorder Treatment Expenditures, by Payer, United States, 2020

PERCENTAGE OF TOTAL PROJECTED SPENDING



Notes: Expenditures are projections. *Other public* includes *other federal* and *other state and local*. *Other private* includes foundation, charity, and other funding sources. Expenditures includes clinical treatment and rehabilitative services and medications, and excludes both activities to prevent SUDs and peer support services for which there is no cost. Projections incorporate expansion of coverage through the Affordable Care Act, implementation of the provisions of behavioral health parity regulations, and expectations about the expiration of patents for certain psychotropic medications. Figures may not total 100% due to rounding.

Source: *Projections of National Expenditures for Treatment of Mental and Substance Use Disorders, 2010–2020*, Substance Abuse and Mental Health Services Administration, 2014, table A.7.

Based on projections, substance use disorder (SUD) treatment accounted for 1% of all health care expenditures in the US in 2020. Although new health plan standards and parity laws are expanding SUD coverage, Medicare and private payers were still projected to spend a considerably smaller share on SUD than they did on overall health care services. Medicaid and other public payers, including federal and state grants funding, accounted for two-thirds of SUD treatment spending.

California's Public Substance Use Disorder Treatment System

Counties provide the majority of substance use disorder (SUD) treatment services to Californians who are enrolled in Medi-Cal or who are uninsured. Medi-Cal managed care plans have only limited responsibility for SUD services.

	Primary Public Programs for SUD Treatment			
	COUNTY SUD PROGRAMS			
	STANDARD DRUG MEDI-CAL STATE PLAN	DRUG MEDI-CAL ORGANIZED DELIVERY SYSTEM (DMC-ODS)	PROGRAMS FUNDED THROUGH SUBSTANCE ABUSE PREVENTION AND TREATMENT BLOCK GRANT	MEDI-CAL MANAGED CARE AND FEE-FOR-SERVICE
Payer	Medi-Cal (federal and state/local)	Medi-Cal (federal and state/local)	Substance Abuse and Mental Health Services Administration	Medi-Cal (federal and state/local)
People Served	Medi-Cal enrollees with SUD	Medi-Cal enrollees with SUD	People with SUD who are either uninsured or are Medi-Cal enrollees (for services not covered by Medi-Cal)	Medi-Cal enrollees needing preventive services, addiction medication management, or inpatient withdrawal management
Services Provided	Outpatient and intensive outpatient SUD services, perinatal residential SUD treatment, narcotic treatment programs	Standard Drug Medi-Cal benefit plus target case management, residential SUD treatment (not limited to perinatal), withdrawal management continuum, recovery services, physician consultation, and at county option, additional medication-assisted treatment and partial hospitalization	Nonresidential treatment, residential treatment, ancillary services, and recovery support services	Prevention and early intervention; Screening, Brief Intervention, and Referral to Treatment (SBIRT); medication-assisted treatment provided in medical settings; inpatient withdrawal management in general and freestanding facilities

Note: *SUD* is substance use disorder.

Sources: WIC § 5600–5623.5; *California Mental Health and Substance Use System Needs Assessment and Service Plan — Volume 2: Service Plan* (PDF), California Dept. of Health Care Services, September 30, 2013; and Allison Valentine, Patricia Violett, and Molly Brassil, *How Medi-Cal Expanded Substance Use Treatment and Access to Care*, California Health Care Foundation, August 2020.

California's Drug Medi-Cal Organized Delivery System

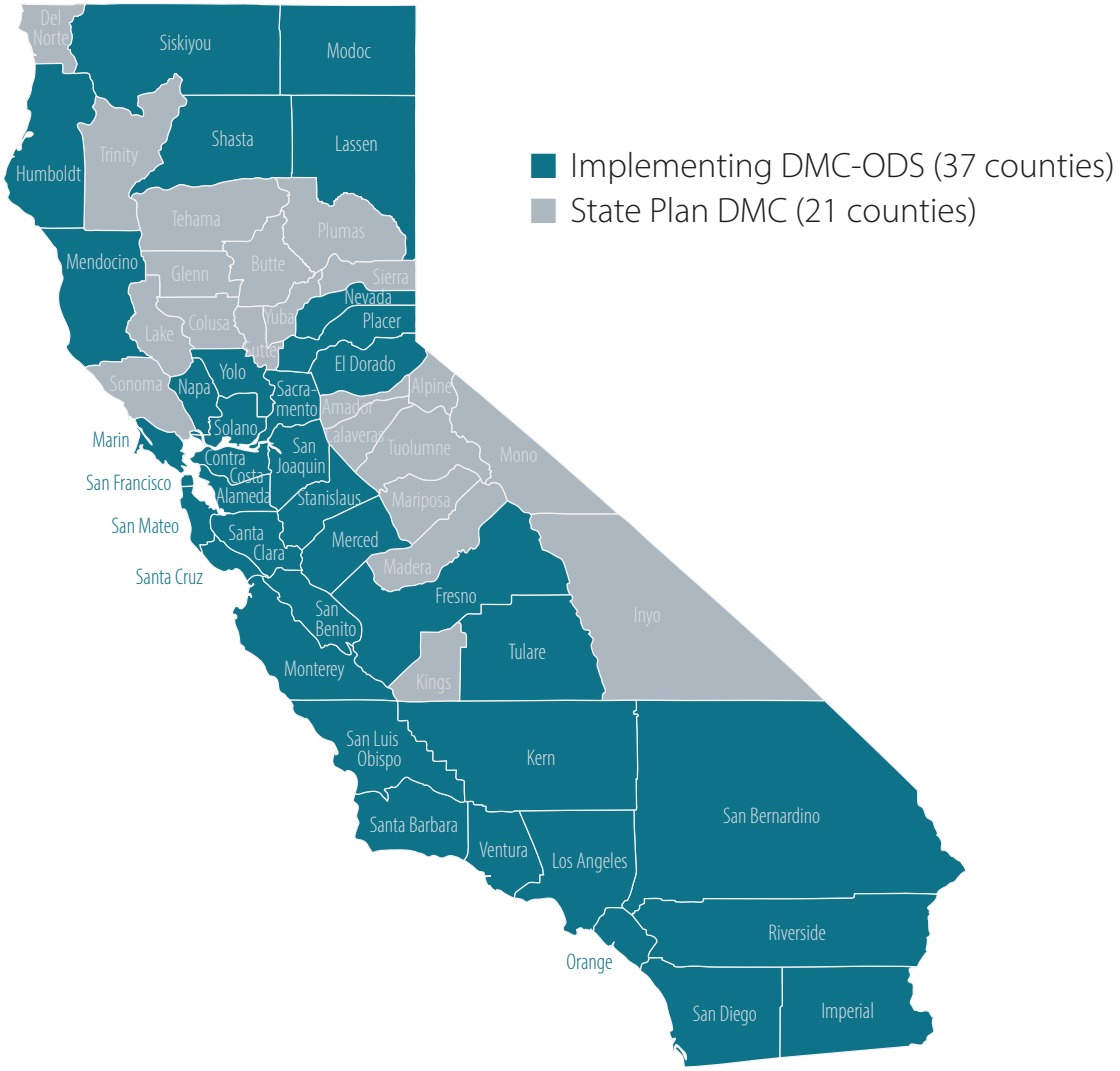
STANDARD DRUG MEDI-CAL STATE PLAN SERVICES	DRUG MEDI-CAL ORGANIZED DELIVERY SYSTEM WAIVER SERVICES
Providers contract with: counties or state	**Providers contract with:** counties
Services • Outpatient drug-free treatment • Intensive outpatient treatment • Residential substance use disorder (SUD) services for perinatal women only (limited to facilities with up to 16 beds) • Naltrexone treatment • Narcotic treatment programs (methadone only)	**Services** All services provided in the standard Drug Medi-Cal program, plus: • Multiple levels of residential SUD treatment (not limited to perinatal women or to facilities with up to 16 beds) • Narcotic treatment programs expanded to include buprenorphine, disulfiram, and naloxone • Withdrawal management (at least one ASAM level*) • Recovery services • Case management • Physician consultation **Optional** • Partial hospitalization • Additional medication-assisted treatment

Under the Drug Medi-Cal Organized Delivery System (DMC-ODS) pilot program, established under California's Medicaid Section 1115 waiver in 2015 and extended through 2026 under California's 1915b waiver in 2021, a broad spectrum of substance use disorder services is provided through county-based managed care plans. The DMC-ODS represents a major expansion of benefits compared to the standard Drug Medi-Cal program.

* See Appendices C and D for American Society of Addition Medicine levels.

Source: Allison Valentine, Patricia Violett, and Molly Brassil, *How Medi-Cal Expanded Substance Use Treatment and Access to Care*, California Health Care Foundation, August 2020.

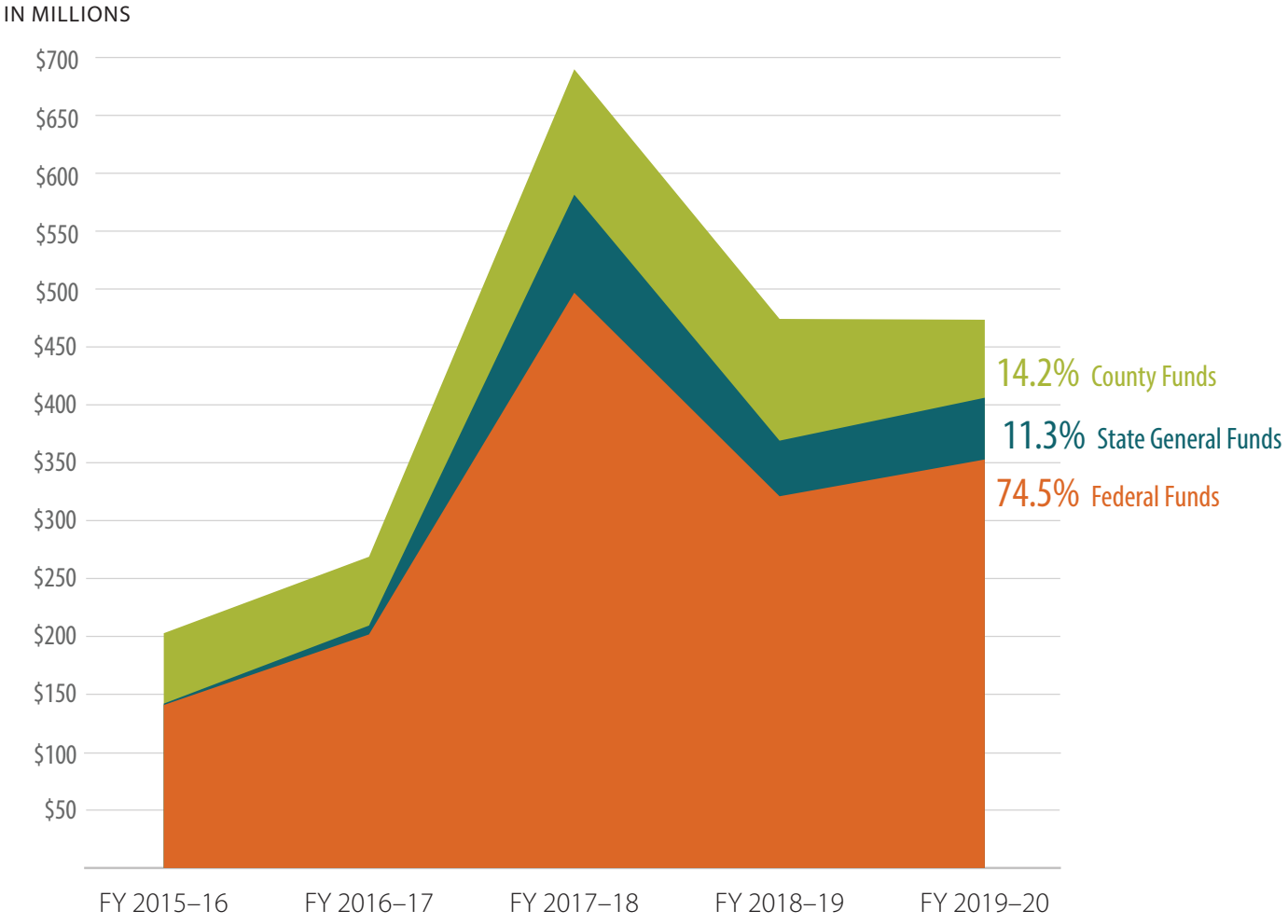
Drug Medi-Cal Organized Delivery System (DMC-ODS)
by County, California, 2020



Source: "Counties Participating in DMC-ODS," California Dept. of Health Care Services, accessed January 2021.

The Drug Medi-Cal Organized Delivery System (DMC-ODS) is California's effort to expand, improve, and reorganize treatment of substance use disorders in Medi-Cal. As of August 2020, 37 counties were implementing DMC-ODS, representing 96% of the state's Medi-Cal population.

Drug Medi-Cal Program Financing
California, FY 2015–16 to FY 2019–20



Notes: All numbers are estimates. Excludes share of 2011 realignment funds designated for Drug Medi-Cal. Excludes funds from federal State Targeted Response and State Opioid Response Grants (also known as the California MAT Expansion Project) designated for direct treatment services.

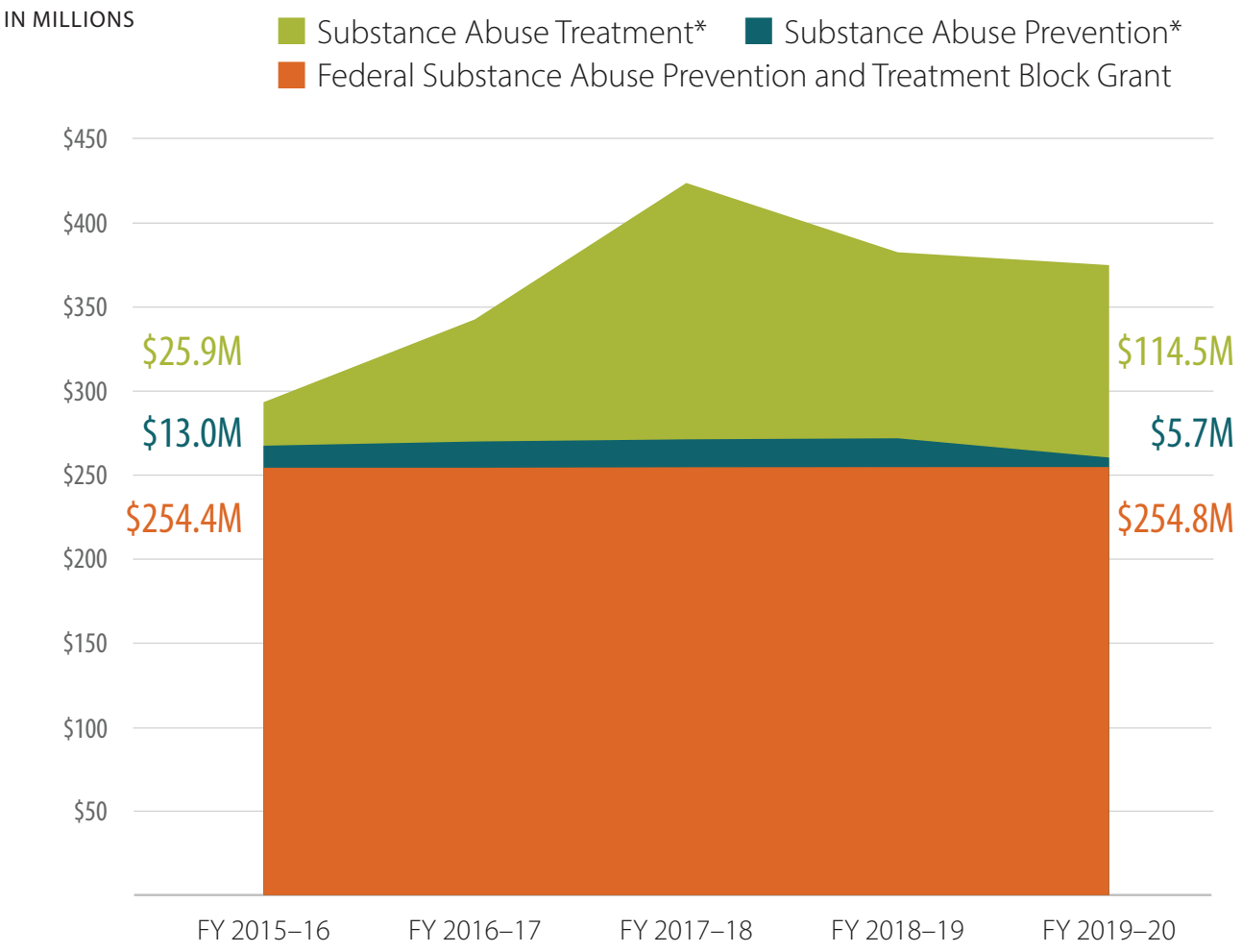
Source: *Drug Medi-Cal Supplemental Chart* (May 2016–2020), California Dept. of Health Care Services.

The Drug Medi-Cal program is jointly funded by the federal, state, and county governments. In fiscal year 2019–20, the federal government financed 75% of the program.

SAMHSA Substance Use Disorder Grants

California, FY 2015–16 to FY 2019–20

In fiscal year 2019–20, California was awarded grants totaling $375 million from the federal Substance Abuse and Mental Health Services Administration for the prevention and treatment of substance use.



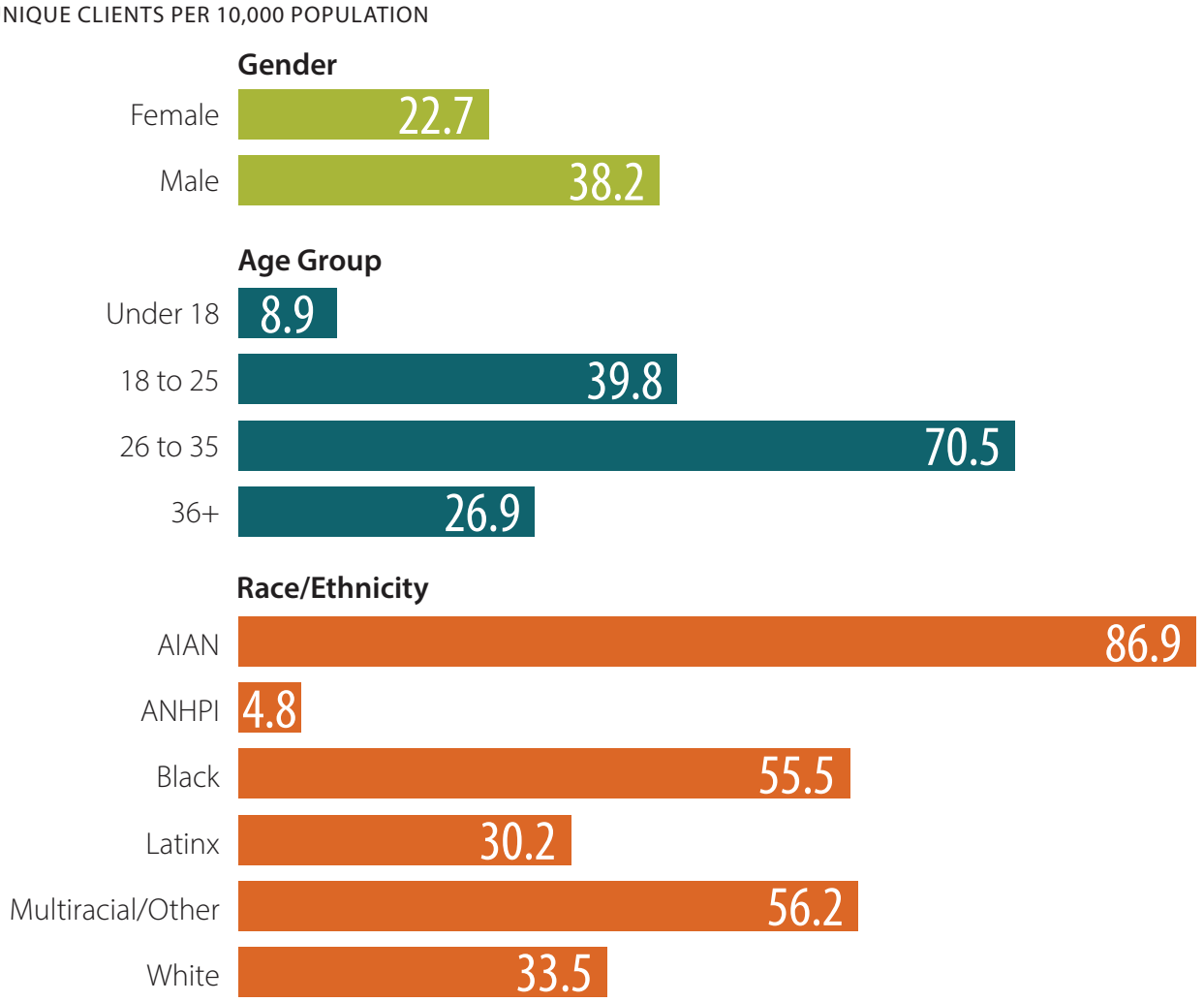
* Discretionary funding

Notes: *SAMHSA* is Substance Abuse and Mental Health Services Administration. Discretionary grants are those for which SAMHSA exercises judgment in determining the grant recipient and the amount of the award. SAMHSA block grants are mandated by Congress and are noncompetitive grants that provide funding for substance abuse services. See "California Summaries FY 2020" on SAMHSA's website for more information on grants.

Source: "SAMHSA Grant Awards by State," SAMHSA, last updated October 9, 2020.

Admissions to State- or County-Contracted SUD Programs

by Gender, Age Group, and Race/Ethnicity, California, SFY 2017–18



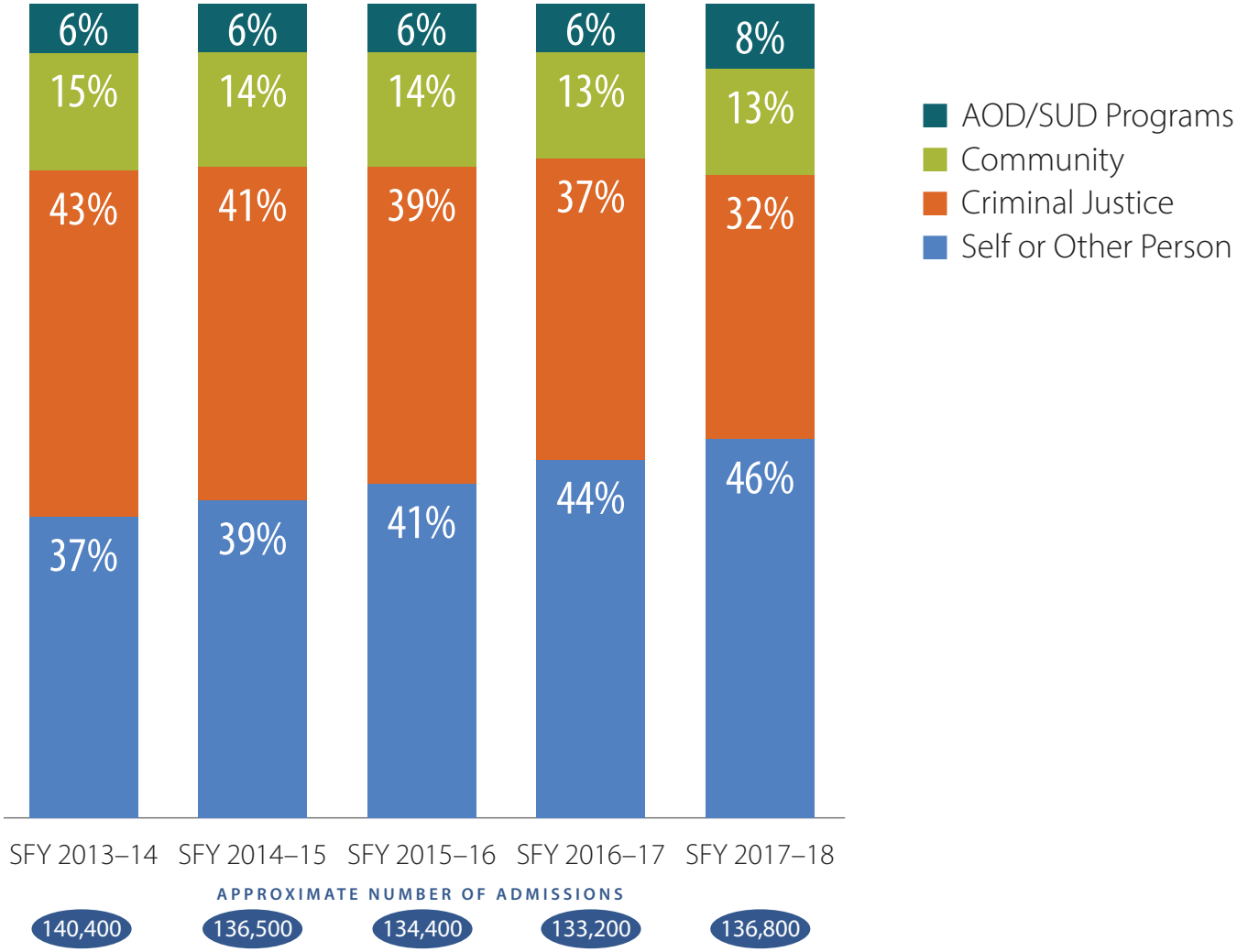
Notes: Unduplicated count of people for their most recent admission for substance use disorder (SUD) treatment during state fiscal year 2017–18. Source uses *Asian / Pacific Islander*, *Latino*, and *Native American / Alaska Native*. *SFY* is state fiscal year; *ANHPI* is Asian, Native Hawaiian, and Pacific Islander; *AIAN* is American Indian and Alaska Native.

Sources: Author calculations based on special data request to the California Dept. of Health Care Services for CalOMS Treatment data, received April 7, 2021; and *Report P-1A: State Population Projections (2010-2060)*, California Dept. of Finance, March 2021.

Over 120,000 people were treated in state- and county-contracted substance use disorder programs in state fiscal year 2017–18 (not shown). Men were more likely than women to access treatment in these programs. Adults age 26 to 35 had the highest rates of admission of any age group. American Indian and Alaska Native Californians had the highest rates of admission per population.

Admissions to State- or County-Contracted SUD Programs

by Referral Source, California, SFY 2013–14 to SFY 2017–18

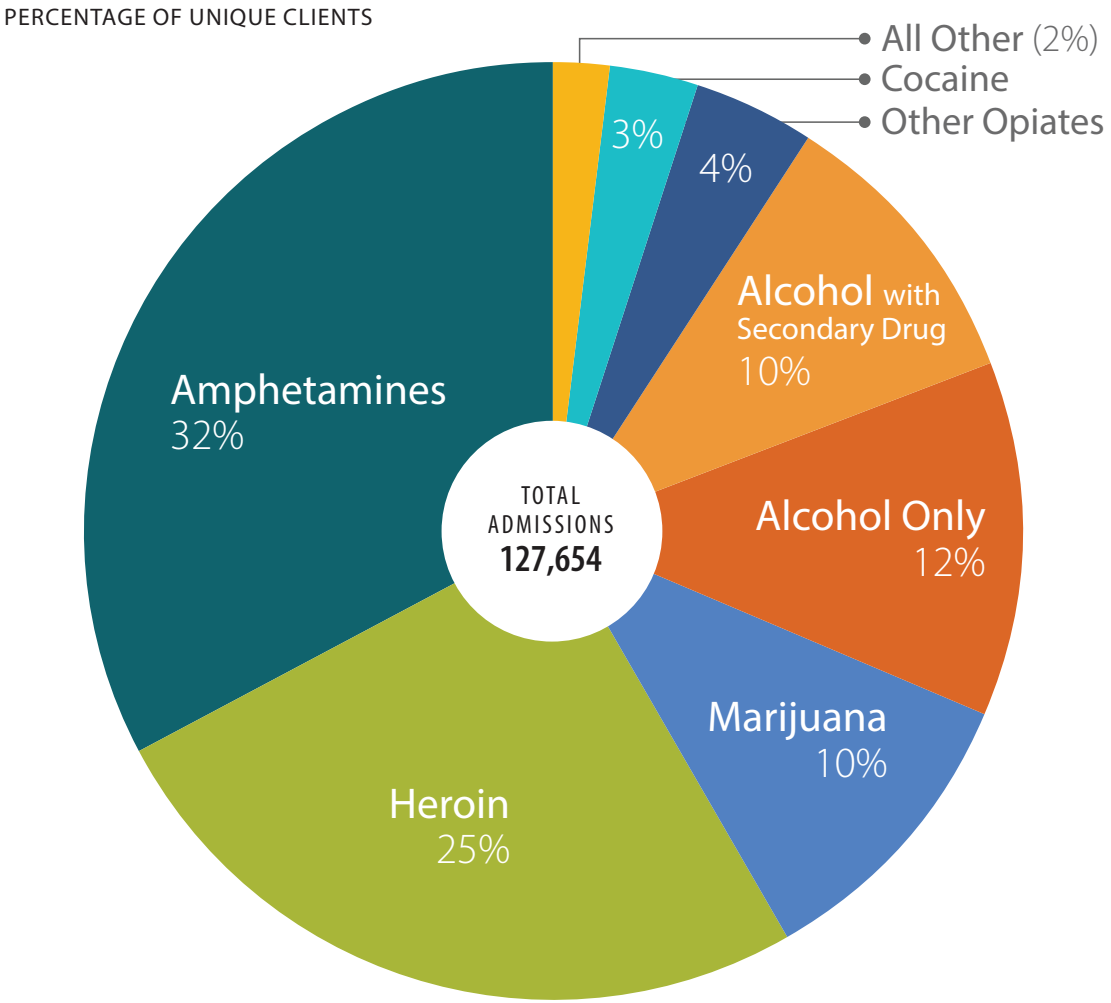


Notes: Data used for this report are based on client admissions, not unique client counts. Admissions are calculated for residential and outpatient only. Detox services are not included. *SUD* is substance use disorder. *AOD* is alcohol and other drug. *SFY* is state fiscal year. *Community* includes referrals from other health care providers, schools, employers or employee assistance programs, Alcoholics Anonymous or Al-Anon, and other community and religious organizations. Figures may not total 100% due to rounding.

Source: Special data request to the California Dept. of Health Care Services for CalOMS Treatment data, received April 7, 2021.

Between state fiscal year (SFY) 2013–14 and SFY 2017–18, an increasing share of referrals to state- or county-contracted substance use disorder services were self-referrals or referrals from other people. Referrals from criminal justice decreased during the five-year period shown.

Treatment for Substance Use Disorder in State- or County-Contracted Programs, by Primary Substance, California, 2019



Notes: Includes primary diagnosis of clients age 12 and older admitted to SUD programs. *Cocaine* includes both smoked and other routes. *All other* includes other stimulants, tranquilizers, sedatives, hallucinogens, PCP, inhalants, and other/unknown. While California Proposition 64 (2016) legalized recreational use of marijuana for adults over age 21 (effective January 1, 2018), marijuana is still considered an illicit substance at the federal level. Figures may not total 100% due to rounding.

Source: "California TEDS Admissions Aged 12 Years and Older, by Primary Substance Use and Gender, Age at Admission, Race, and Ethnicity: Percent, 2019," Substance Abuse and Mental Health Services Administration, last modified July 1, 2020.

Amphetamines were the primary drugs used by 32% of people admitted to state- and county-contracted substance use disorder (SUD) treatment programs. Heroin was the primary substance for 25% of admissions. Although alcohol use disorder is the most common SUD in California,* alcohol (either alone or with a secondary drug) represented 22% of admissions.

** 2018-2019 National Survey on Drug Use and Health*, Substance Abuse and Mental Health Services Administration, table 20.

Methodology

The charts were developed through review of numerous public sources of data on substance use disorder prevalence, treatment resources, use of treatment, and state and national expenditures. In some cases, the author calculated rates per population using estimates and projections of the California Department of Finance. Data not publicly available were acquired through special data requests to California state agencies.

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**.

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Appendix A: Diagnostic Criteria for Substance Use Disorder, *DSM-5*

The DSM-5 describes a problematic use of an intoxicating substance leading to clinically significant impairment or distress, as manifested by at least two of the following, occurring within a 12-month period.

1. The substance is often taken in larger amounts or over a longer period than was intended.
2. There is a persistent desire or unsuccessful effort to cut down or control use of the substance.
3. A great deal of time is spent in activities necessary to obtain the substance, use the substance, or recover from its effects.
4. Craving, or a strong desire or urge to use the substance.
5. Recurrent use of the substance resulting in a failure to fulfill major role obligations at work, school, or home.
6. Continued use of the substance despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of its use.
7. Important social, occupational, or recreational activities are given up or reduced because of use of the substance.
8. Recurrent use of the substance in situations in which it is physically hazardous.
9. Use of the substance is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance.
10. Tolerance, as defined by either of the following:
    a. A need for markedly increased amounts of the substance to achieve intoxication or desired effect.
    b. A markedly diminished effect with continued use of the same amount of the substance.
11. Withdrawal, as manifested by either of the following:
    a. The characteristic withdrawal syndrome for that substance (as specified in the DSM-5 for each substance).
    b. The substance (or a closely related substance) is taken to relieve or avoid withdrawal symptoms.

Notes: *DSM* is *Diagnostic and Statistical Manual of Mental Disorders*. The *DSM-5* was issued in May 2013, and was accepted as the standard for diagnosing beginning in 2014, and required as the standard for diagnosing in 2015. Most of the data included in this document were collected according to the earlier DSM-IV-TR diagnoses.

Source: "The Science of Drug Abuse and Addiction: The Basics," National Institute on Drug Abuse.

Appendix B: Opioid Overdose Deaths, by County, California, 2019

	TYPE OF OPIOID				PERCENTAGE OF ANY OPIOID		
COUNTY	ANY OPIOID*	HEROIN	FENTANYL	PRESCRIPTION	HEROIN	FENTANYL	PRESCRIPTION
Alameda	**103**	25	56	33	**24%**	**54%**	**32%**
Alpine	**0**	0	0	0	**N/A**	**N/A**	**N/A**
Amador	**5**	0	2	3	**0%**	**40%**	**60%**
Butte	**12**	4	2	7	**33%**	**17%**	**58%**
Calaveras	**4**	1	0	3	**25%**	**0%**	**75%**
Colusa	**3**	0	1	2	**0%**	**33%**	**67%**
Contra Costa	**91**	26	49	34	**29%**	**54%**	**37%**
Del Norte	**1**	0	0	1	**0%**	**0%**	**100%**
El Dorado	**10**	3	2	6	**30%**	**20%**	**60%**
Fresno	**48**	4	15	24	**8%**	**31%**	**50%**
Glenn	**1**	1	0	0	**100%**	**0%**	**0%**
Humboldt	**24**	7	8	13	**29%**	**33%**	**54%**
Imperial	**12**	1	6	3	**8%**	**50%**	**25%**
Inyo	**2**	1	1	1	**50%**	**50%**	**50%**
Kern	**117**	36	54	45	**31%**	**46%**	**38%**
Kings	**2**	1	0	2	**50%**	**0%**	**100%**
Lake	**23**	8	4	13	**35%**	**17%**	**57%**
Lassen	**7**	2	2	4	**29%**	**29%**	**57%**
Los Angeles	**707**	232	406	185	**33%**	**57%**	**26%**
Madera	**13**	1	3	10	**8%**	**23%**	**77%**
Marin	**22**	8	11	4	**36%**	**50%**	**18%**

* Some opioid types not shown and rows may not sum.

Appendix B: Opioid Overdose Deaths, by County, California, 2019 (continued)

	TYPE OF OPIOID				PERCENTAGE OF ANY OPIOID		
COUNTY	ANY OPIOID*	HEROIN	FENTANYL	PRESCRIPTION	HEROIN	FENTANYL	PRESCRIPTION
Mariposa	**4**	0	0	4	**0%**	**0%**	**100%**
Mendocino	**18**	8	9	9	**44%**	**50%**	**50%**
Merced	**20**	4	4	13	**20%**	**20%**	**65%**
Modoc	**0**	0	0	0	**N/A**	**N/A**	**N/A**
Mono	**0**	0	0	0	**N/A**	**N/A**	**N/A**
Monterey	**20**	0	9	3	**0%**	**45%**	**15%**
Napa	**3**	0	2	1	**0%**	**67%**	**33%**
Nevada	**10**	3	0	7	**30%**	**0%**	**70%**
Orange	**272**	76	126	100	**28%**	**46%**	**37%**
Placer	**30**	8	6	16	**27%**	**20%**	**53%**
Plumas	**2**	1	1	1	**50%**	**50%**	**50%**
Riverside	**245**	80	134	52	**33%**	**55%**	**21%**
Sacramento	**119**	32	36	61	**27%**	**30%**	**51%**
San Benito	**5**	1	3	1	**20%**	**60%**	**20%**
San Bernardino	**133**	39	74	26	**29%**	**56%**	**20%**
San Diego	**314**	113	142	94	**36%**	**45%**	**30%**
San Francisco	**279**	70	196	75	**25%**	**70%**	**27%**
San Joaquin	**39**	8	14	18	**21%**	**36%**	**46%**
San Luis Obispo	**21**	2	8	3	**10%**	**38%**	**14%**
San Mateo	**65**	7	36	27	**11%**	**55%**	**42%**

* Some opioid types not shown and rows may not sum.

Appendix B: Opioid Overdose Deaths, by County, California, 2019 (continued)

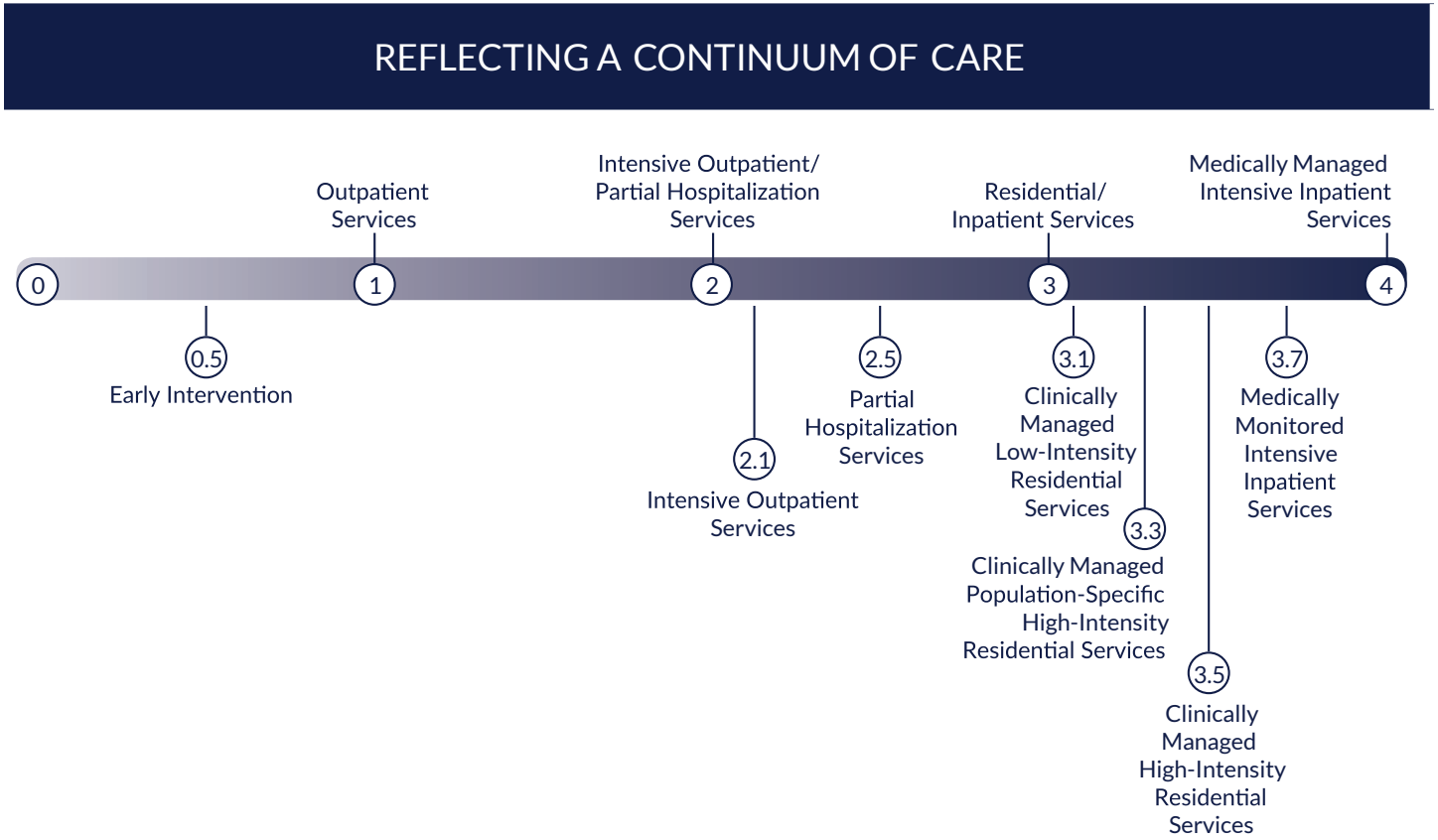
	TYPE OF OPIOID				PERCENTAGE OF ANY OPIOID		
COUNTY	ANY OPIOID*	HEROIN	FENTANYL	PRESCRIPTION	HEROIN	FENTANYL	PRESCRIPTION
Santa Barbara	**26**	5	15	2	**19%**	**58%**	**8%**
Santa Clara	**88**	41	25	32	**47%**	**28%**	**36%**
Santa Cruz	**29**	14	5	14	**48%**	**17%**	**48%**
Shasta	**18**	6	6	6	**33%**	**33%**	**33%**
Sierra	**0**	0	0	0	**N/A**	**N/A**	**N/A**
Siskiyou	**2**	1	1	1	**50%**	**50%**	**50%**
Solano	**34**	8	18	11	**24%**	**53%**	**32%**
Sonoma	**65**	19	41	27	**29%**	**63%**	**42%**
Stanislaus	**46**	7	15	22	**15%**	**33%**	**48%**
Sutter	**3**	1	2	1	**33%**	**67%**	**33%**
Tehama	**1**	0	0	1	**0%**	**0%**	**100%**
Trinity	**2**	0	0	2	**0%**	**0%**	**100%**
Tulare	**12**	0	6	6	**0%**	**50%**	**50%**
Tuolumne	**2**	1	1	1	**50%**	**50%**	**50%**
Ventura	**89**	42	38	38	**47%**	**43%**	**43%**
Yolo	**9**	4	2	4	**44%**	**22%**	**44%**
Yuba	**8**	1	4	2	**13%**	**50%**	**25%**
Unknown	**4**	2	2	2	**50%**	**50%**	**50%**
California	**3,244**	965	1,603	1,076	**30%**	**49%**	**33%**

* Some opioid types not shown and rows may not sum.

Source: "California Overdose Surveillance Dashboard," California Dept. of Public Health.

Appendix C: ASAM Levels of Substance Use Disorder Care

The ASAM Criteria are objective guidelines that allow clinicians to standardize treatment planning and identify the appropriate level of care for the patient, as well as how to provide continuing, integrated care and ongoing service planning.



Notes: *ASAM* is American Society of Addiction Medicine. Within the five broad levels of care (0.5, 1, 2, 3, and 4), decimal numbers are used to further express gradations of intensity of services. The decimals listed here represent benchmarks along a continuum, meaning patients can move up or down in intensity without necessarily being placed in a new benchmark level of care.

Source: "What Are the ASAM Levels of Care?," ASAM.

Appendix C: ASAM Levels of Substance Use Disorder Care (continued)

Continuum of Care

ASAM LEVEL / TITLE	DESCRIPTION	SPECIALIZED SERVICES
0.5 Early Intervention	Interventions for individuals with a known risk of developing substance-related problems, or a service for those for whom there is not yet sufficient information to document a diagnosable substance use disorder.	N/A
1 Outpatient Services	Recovery or motivational enhancement therapies/strategies needed for less than 9 hours/week (adults) or 6 hours/week (adolescents).	N/A
2.1 Intensive Outpatient Services	An organized outpatient service that delivers treatment services during the day, before or after work or school, in the evening, and/or on weekends to treat multiple dimensions of instability needed 9 or more hours/week (adults) or 6 or more hours/week (adolescents).	N/A
2.5 Partial Hospitalization Services	An organized outpatient service that delivers treatment services during the day, before or after work or school, in the evening, and/or on weekends to treat multiple dimensions of instability. Provides treatment for multiple dimensions of instability and for addiction and co-occurring conditions. Services needed 20 or more hours/week but not requiring 24-hour care.	N/A
3.1 Clinically Managed Low-Intensity Residential Services	24-hour living support and structure with available trained personnel that offers at least 5 hours of clinical service a week.	Encompasses residential services that are described as co-occurring capable, co-occurring enhanced, and complexity-capable services, which are staffed by designated addiction treatment, mental health, and general medical personnel who provide a range of services in a 24-hour living support setting.
3.3 Clinically Managed Population-Specific High-Intensity Residential Services	24-hour care to stabilize multiple dimensions with imminent danger. Offers less-intense milieu and group treatment for those with cognitive or other impairments.	
3.5 Clinically Managed High-Intensity Residential Services	Adult-only level of care typically offers 24-hour care with trained counselors to stabilize multidimensional imminent danger along with less-intense milieu and group treatment for those with cognitive or other impairments unable to use full active milieu or therapeutic community.	
3.7 Medically Monitored Intensive Inpatient Services	24-hour care with trained counselors to stabilize multidimensional imminent danger and prepare for outpatient treatment. Patients in this level are able to tolerate and use full active milieu or therapeutic communities.	
4 Medically Managed Intensive Inpatient Services	24-hour nursing care and daily physician care for severe, unstable problems in ASAM Dimensions 1, 2, or 3. Counseling is available to engage patients in treatment.	N/A
OTP Opioid Treatment Program	Daily or several times weekly opioid agonist medication and counseling to maintain stability in multiple dimensions for those with severe opioid use disorder.	N/A

Notes: *ASAM* is American Society of Addiction Medicine. *N/A* is not applicable.

Source: "What Are the ASAM Levels of Care?," Amer. Society of Addiction Medicine, May 13, 2015.

Withdrawal Services

ASAM LEVEL / TITLE	SEVERITY	LEVEL / TYPE OF SUPERVISION
1-WM Ambulatory Withdrawal Management Without Extended On-Site Monitoring	Mild	Daily or less than daily outpatient supervision.
2-WM Ambulatory Withdrawal Management with Extended On-Site Monitoring	Moderate	All-day withdrawal management and support and supervision; nighttime supportive family or living situation.
3.2-WM Clinically Managed Residential Withdrawal Management	Moderate	24-hour support to complete withdrawal management and increase likelihood of continuing treatment or recovery.
3.7-WM Medically Monitored Inpatient Withdrawal Management	Severe	24-hour nursing care and physician visits; unlikely to complete withdrawal management without medical monitoring.
4-WM Medically Managed Intensive Inpatient Withdrawal Management	Severe	24-hour nursing care and daily physician visits to modify withdrawal management regimen and manage medical instability.

Source: *California Medi-Cal 2020 Demonstration: Special Terms and Conditions* (no. 11-W-00193/9) (PDF), California Dept. of Health Care Services.

Appendix D: Drug Medi-Cal Organized Delivery System Continuum of Substance Use Disorder Care

ASAM LEVEL / TITLE	PROVIDER
0.5 Early Intervention	Managed care or fee-for-service providers
1 Outpatient Services	DHCS certified outpatient facilities
2.1 Intensive Outpatient Services	DHCS certified intensive outpatient facilities
2.5 Partial Hospitalization Services	DHCS certified intensive outpatient facilities
3.1 Clinically Managed Low-Intensity Residential Services	DHCS licensed and DHCS/ASAM designated residential providers
3.3 Clinically Managed Population-Specific High-Intensity Residential Services	DHCS licensed and DHCS/ASAM designated residential providers
3.5 Clinically Managed High-Intensity Residential Services	DHCS licensed and DHCS/ASAM designated residential providers
3.7 Medically Monitored Intensive Inpatient Services	Hospitals, chemical dependency recovery hospitals, freestanding psychiatric hospitals
4 Medically Managed Intensive Inpatient Services	Hospitals, chemical dependency recovery hospitals, freestanding psychiatric hospitals
OTP Opioid Treatment Program	DHCS licensed OTP maintenance providers, licensed prescribers

Notes: *DHCS* is California Department of Health Care Services. *ASAM* is American Society of Addiction Medicine. Provider types by the American Society of Addiction Medicine (ASAM). Refer to Appendix C for ASAM level of care descriptions. Elsewhere in this report, *OTP* is referred to as *narcotic treatment program (NTP)*.

Source: *California Medi-Cal 2020 Demonstration: Special Terms and Conditions* (no. 11-W-00193/9) (PDF), California Dept. of Health Care Services.

Appendix E: California Substance Use Disorder Treatment Programs and Services

	DESCRIPTION	LICENSING AUTHORITY	DHCS SUD COMPLIANCE DIVISION PROGRAM CERTIFICATION
Driving Under the Influence (DUI) Programs	Providing court-mandated educational sessions to individuals convicted of driving under the influence.	Department of Health Care Services (DHCS) Substance Use Disorder Compliance Division	N/A
Emergency Medical Services	Hospital emergency medical services for people suffering from SUD issues.	Department of Public Health (DPH)	Voluntary
Narcotic Treatment Programs (NTP)	Providing replacement narcotic therapy to individuals overcoming opioid dependency.	DHCS Substance Use Disorder Compliance Division	Voluntary
Outpatient SUD Services	Any outpatient medical facility licensed by DPH may also provide SUD outpatient services.	Department of Public Health	Voluntary
	Nonhospital outpatient SUD providers offering nonmedical SUD care.	No licensure required or available	Voluntary
Residential Medical Services	Medical services in a hospital residential setting to people overcoming alcohol and/or other drug issues.	Department of Public Health	Voluntary
Residential Nonmedical Services	Nonmedical care and/or recovery services to adults for the treatment of alcohol and other drug issues in a residential setting, including alcohol or drug detoxification; group, individual, or educational sessions; and/or recovery or treatment planning.	DHCS Substance Use Disorder Compliance Division	Voluntary for DHCS SUD Compliance Division licensed facilities, and DSS or other state agency licensed residential nonmedical facilities that have an SUD treatment component.

Notes: *SUD* is substance use disorder. *N/A* is not applicable.

Source: Cal. Code Regs. tit. 9, § 9000 et seq.

Appendix F: Licensed Narcotic Treatment Program Slots, by Region and California County, 2020

	SLOTS PER 100,000 POPULATION
Central Coast	***23.3***
Monterey	12.4
San Benito	0.0
San Luis Obispo	14.2
Santa Barbara	26.7
Santa Cruz	34.9
Ventura	28.0
Greater Bay Area	***17.9***
Alameda	21.0
Contra Costa	8.1
Marin	16.5
Napa	0.0
San Francisco	53.5
San Mateo	9.7
Santa Clara	7.1
Solano	25.5
Sonoma	16.1
Inland Empire	***12.0***
Riverside	12.5
San Bernardino	11.3

	SLOTS PER 100,000 POPULATION
Los Angeles County	***15.2***
Los Angeles	15.2
Northern and Sierra	***20.0***
Alpine	0.0
Amador	30.3
Butte	33.0
Calaveras	0.0
Colusa	0.0
Del Norte	0.0
Glenn	0.0
Humboldt	16.4
Inyo	0.0
Lake	0.0
Lassen	0.0
Mariposa	0.0
Mendocino	0.0
Modoc	0.0
Mono	0.0
Nevada	0.0
Plumas	0.0

	SLOTS PER 100,000 POPULATION
Shasta	34.0
Sierra	0.0
Siskiyou	0.0
Sutter	12.4
Tehama	0.0
Trinity	0.0
Tuolumne	0.0
Yuba	147.7
Orange County	***9.4***
Orange	9.4
Sacramento Area	***23.4***
El Dorado	0.0
Placer	25.8
Sacramento	27.6
Yolo	11.4
San Diego Area	***19.1***
Imperial	36.7
San Diego	18.1
San Joaquin Valley	***27.6***
Fresno	38.2

	SLOTS PER 100,000 POPULATION
Kern	27.7
Kings	0.0
Madera	0.0
Merced	20.7
San Joaquin	45.3
Stanislaus	13.6
Tulare	14.0
California	**17.7**

Notes: Only narcotic treatment programs (NTPs) licensed by the California Department of Health Care Services, with approval from the US Drug Enforcement Administration (DEA) and the Substance Abuse and Mental Health Services Administration (SAMHSA) may provide narcotic replacement therapy to administer methadone. Narcotic replacement therapy is administered as part of a comprehensive treatment program including a medical evaluation and counseling for medical, alcohol, criminal, and psychological problems. Patients undergo regular urinalysis to ensure that illicit drugs are not being used during treatment.

Source: State of California Narcotic Treatment Program Directory, California Dept. of Health Care Services, December 22, 2020.

Appendix G: 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