

Cannabis Use & Consequences in California:

2016 Baseline Data Brief



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About the California Cannabis Surveillance System

The California Cannabis Surveillance System (CCSS) is a public health surveillance system tasked with monitoring youth and adult cannabis use, negative legal and social consequences related to cannabis, clinical outcomes of cannabis use, and environmental impacts of cannabis in California. In response to the California Adult Use of Marijuana Act (AUMA; California Proposition 64), which allows the retail sale and use of cannabis as of January 1, 2018, the California Department of Public Health (CDPH) developed a public health surveillance framework. This framework guides CDPH’s public health efforts to ensure the safe implementation of the law, track cannabis consumption patterns, and monitor the outcomes and consequences of the new law over time. The AUMA will likely have far-ranging economic and societal impacts, as well as numerous impacts on the physical, social, and environmental health of individuals, families, and communities in California. There is a strong need to have a public health surveillance system that can identify emerging issues early and evaluate the impact of the law’s implementation over time. The CCSS meets this need and will engage in long-term surveillance of cannabis in California.

This data brief provides a cross-sectional, baseline review of cannabis trends and impacts in California in 2016, the year California Proposition 64 passed, and two years prior to the enactment of the AUMA, in January 2018.

Dedication

It is with much gratitude to Roger B. Trent, PhD that this publication is dedicated in his memory.

Dr. Trent was a founding leader of what is now the Injury and Violence Prevention Branch at the California Department of Public Health, laying the foundation for one of the most robust injury prevention programs in the nation. He made significant contributions to the field of injury epidemiology, not only in the state of California, but nationally and internationally as well. Dr. Trent retired as Chief of the Injury Surveillance and Epidemiology Section after 25 years of service. He returned as a Retired Annuitant to support the development of a public health cannabis surveillance system and to further contribute to opioid overdose surveillance. Dr. Trent authored over 60 publications in peer-reviewed scientific journals, gave countless presentations, and mentored numerous epidemiologists and fellows, thus ensuring a solid foundation in the next generation of scientists. He was an injury epidemiologist who was passionate about clear and concise scientific writing, making data accessible and usable to all.

“As scientists, our job is to give data to those who make policies and programs to prevent injuries... But the best thing we have done is take data out into the world and give everyone the right to use it to make up their own minds about the preventable injuries that still threaten public health.”

– Roger Trent, PhD

Roger will be remembered as a cherished colleague, mentor, and respected injury researcher with a wickedly sharp sense of humor and will be missed by all whose lives he touched.

Suggested Citation:

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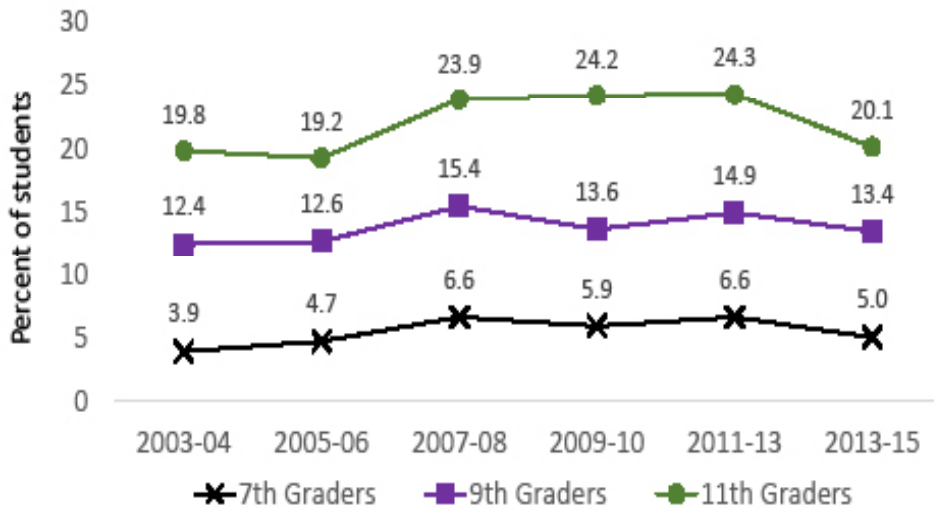
Current Youth Cannabis Use

In 2013-2015, 12.8 percent of California youth in grades 7, 9, and 11 reported using cannabis in any form in the last 30 days. Current cannabis use (Figure 1), defined as cannabis use within the past 30 days, among youth (students in grades 7, 9, and 11) has remained relatively stable from 2003-2015, with slight increases occurring among all grades in the years 2007-2013.

Male youth have a higher prevalence of current cannabis use (13.8 percent) than females (11.8 percent)(Table 1). The lowest prevalence of current cannabis use is among Asian students (4.2 percent) and the highest is among Black students (17.0 percent).

Data Source: California Healthy Kids Survey, 2013-2015

Figure 1. Current (past 30 days) cannabis use among youth in grades 7, 9, and 11, 2003-2015*



*Change in prevalence from 2009-10 to 2011-13 should be interpreted with caution due to a change in survey methodology.

Table 1. Characteristics of current (past 30 days) youth cannabis users in grades 7, 9, and 11, 2013-2015

	%	95% CI
Total	12.8	12.4-13.2
Gender		
Male	13.8**	13.2-14.3
Female	11.8	11.3-12.3
Race/Ethnicity		
White	12.0	11.3-12.7
Black	17.0	15.2-18.8
Hispanic	14.3	13.8-14.9
Asian	4.2**	3.6-4.8
NA/AN	14.7	10.8-18.6
NHOPI	11.9	9.5-14.3
Mixed Race	14.4	13.3-15.6

*Notes: 95% CI = 95% Confidence Interval

** Statistically significant difference compared to other groups

NA/AN= Native American/Alaska Native; NHOPI = Native Hawaiian/ Other Pacific Islander

Current Youth Cannabis Use

Table 2. Characteristics of current users reporting heavy cannabis use (using 20 or more days in the last month) among youth in grades 7, 9, and 11, 2013-2015

	%	95% CI
Total	25.5	24.2-26.9
Gender		
Male	30.9**	28.9-32.9
Female	19.4	17.6-21.1
Race/Ethnicity		
White	23.7	21.0-26.4
Black	35.4	29.8-40.9
Hispanic	24.5	22.8-26.2

** Statistically significant difference compared to other groups

Note: Denominator is past 30 day users.

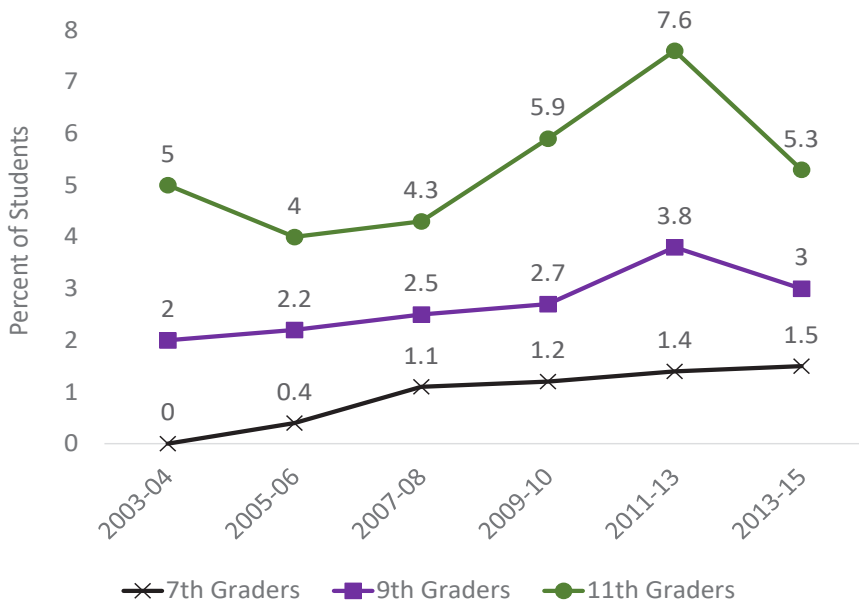
In 2013-2015, 3.3 percent of California youth in grades 7, 9, and 11 reported using cannabis 20 or more days in the last 30 days (heavy use). Heavy cannabis use (Figure 2) slightly increased from 2003 to 2015 among youth in all grades. The largest increase is seen among 7th graders, increasing from zero percent of students reporting being heavy users in 2003-2004 to 1.5 percent of students reporting being heavy users.

Heavy cannabis use increases with age, with 1.5 percent of 7th graders, 3.0 percent of 9th graders, and 5.3 percent of 11th graders reporting having used cannabis 20 or more days in the past month in 2013-2015.

Of current users, 25.5 percent reported using 20 or more days of the last 30 days (Table 2). Among current users, significantly more males reported heavy use (30.9 percent) than females (19.4 percent) and Black students were most likely to be heavy users (35.4 percent) compared to their peers of other races/ethnicities.

Data Source: California Healthy Kids Survey, 2013-2015

Figure 2. Heavy cannabis use (using 20 or more days in the last month) among youth in grades 7, 9, and 11, 2003-2015*



*Change in prevalence from 2009-10 to 2011-13 should be interpreted with caution due to a change in survey methodology.

Youth Cannabis Attitudes & Perceptions

In 2013-2015, 45.5 percent of California youth in grades 7, 9, and 11 reported perceiving great risk of harm from smoking cannabis 1 or 2 times per week. Nearly half of 7th graders (49.2 percent) perceived great risk of harm, significantly more than 11th graders (39.5 percent) (Table 3). Asians (57.7 percent) were more likely to perceive great risk of harm and Black students (36.5 percent) were least likely to perceive great risk of harm. In 2013-2015, 48.7 percent of all 7th, 9th, and 11th graders reported that cannabis would be very easy or fairly easy to obtain. Half of females (50.8 percent) reported that cannabis was very easy or fairly easy to obtain, significantly higher than males (46.6 percent) (Table 4). The perception of ease of obtaining cannabis was fairly stable from 2003-2015, but increased with age (Figure 3).

Data Source: California Healthy Kids Survey, 2013-2015

Table 4. Characteristics of youth in grades 7, 9, and 11 who perceive cannabis to be very easy or fairly easy to obtain, 2013-2015

	%	95% CI
Total	48.7	48.1-49.3
Gender		
Male	46.6	45.8-47.4
Female	50.8**	50.0-51.6
Race/Ethnicity		
White	49.6	48.5-50.8
Black	49.2	46.6-51.7
Hispanic	51.3	50.5-52.1
Asian	33.9**	32.4-35.3
NA/AN	43.4	38.2-48.7
NHOPI	47.3	43.4-51.2
Mixed Race	48.6	47.0-50.2

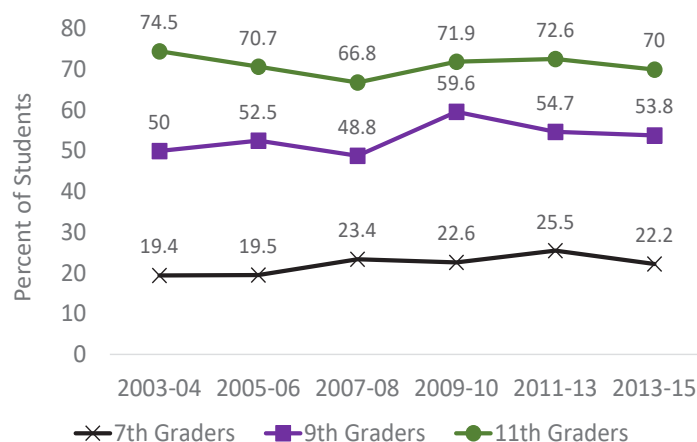
** Statistically significant difference. Notes: NA/AN = Native American/Alaska Native; NHOPI = Native Hawaiian/Other Pacific Islander

Table 3. Characteristics of youth who perceive great risk of harm from using cannabis 1 or 2 times per week, 2013-2015

	%	95% CI
Total	45.5	44.9-46.1
Grade		
7th	49.2	48.0-50.4
9th	47.8	46.9-48.6
11th	39.5**	38.6-40.4
Gender		
Male	44.1**	43.3-44.9
Female	46.8	46.0-47.6
Race/Ethnicity		
White	50.7	49.5-51.8
Black	36.5**	34.1-39.0
Hispanic	41.6	40.8-42.4
Asian	57.7**	56.1-59.3
NA/AN	46.8	41.5-52.1
NHOPI	47.8	43.9-51.8
Multiple races	44.3	43.9-51.8

** Statistically significant difference. Notes: NA/AN = Native American/Alaska Native; NHOPI = Native Hawaiian/Other Pacific Islander

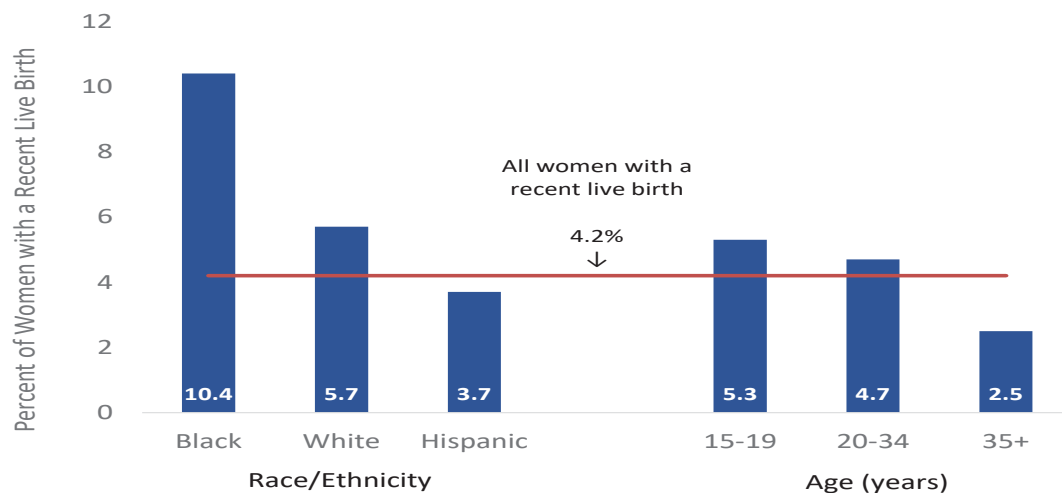
Figure 3. Youth perception of cannabis as being very easy or fairly easy to obtain, 2003-2015



Note: Change in prevalence from 2009-10 to 2011-13 should be interpreted with caution due to a change in survey methodology.

Cannabis Use Among Pregnant Women

Figure 4. Cannabis use during pregnancy among California women with a live birth, 2016



In 2016, 4.2 percent of women who had a recent live birth in California reported using cannabis during their recent pregnancy. Black women had the highest prevalence of cannabis use during pregnancy at 10.4 percent (Figure 4). Cannabis use during pregnancy declines with age. The prevalence of cannabis use among pregnant women ages 15-19 (5.3 percent) was two times higher than among

women 35 and older (2.5 percent). Table 5 describes socioeconomic characteristics (education and family income) of women with a recent live birth by cannabis use status. Among women who used cannabis during pregnancy, 43.9% had some college as the highest level of education and 59.7% had a family income below the federal poverty line. Data Source: Maternal and Infant Health Assessment, 2016

Table 5. Differences in socioeconomic characteristics between cannabis users and non-users among women in California with a recent live birth, 2016

	% Cannabis Users	95% CI	% Non Cannabis Users	95% CI
Education				
Less than High School	17.7	11.3-24.2	14.3	13.2-15.5
High School/GED	24.5	17.7-31.4	18.7	17.4-20.1
Some College	43.9**	35.9-51.8	30.7	29.1-32.4
College Graduate	13.9	8.7-19.0	36.2	34.5-37.9
Family Income*				
0-100% FPG	59.7**	51.7-67.7	35.3	33.6-37.0
101-200% FPG	22.3	15.3-29.3	21.9	20.4-23.5
>200% FPG	18.0	12.1-23.8	42.8	40.9-44.6

* Based on the Federal Poverty Guidelines (FPG) <https://aspe.hhs.gov/poverty-guidelines>

** Statistically significant difference when compared to other groups

Current Adult Cannabis Use

In 2016, 9.9 percent* of adults ages 21 and older reported using cannabis in the last 30 days (current use). Among adults ages 21 and older, males (13.6 percent) were more than twice as likely to be current users than females (6.4 percent) (Table 6). Adults ages 35 years and older were less likely to be current users than those 26-34 years old (13.4 percent) and those 21-25 years old (22.5 percent).

Asian and Pacific Islander adults (3.5 percent) were less likely to be current users compared to other racial groups. Those who had less than a high school education were less likely to be current users (2.5 percent) compared to adults at other education levels. Current use among adults ages 21 and older has been increasing, from 5.9 percent in the years 2002-2003 to 10.5 percent* in the years 2015-2016, a 78 percent increase (Figure 5).

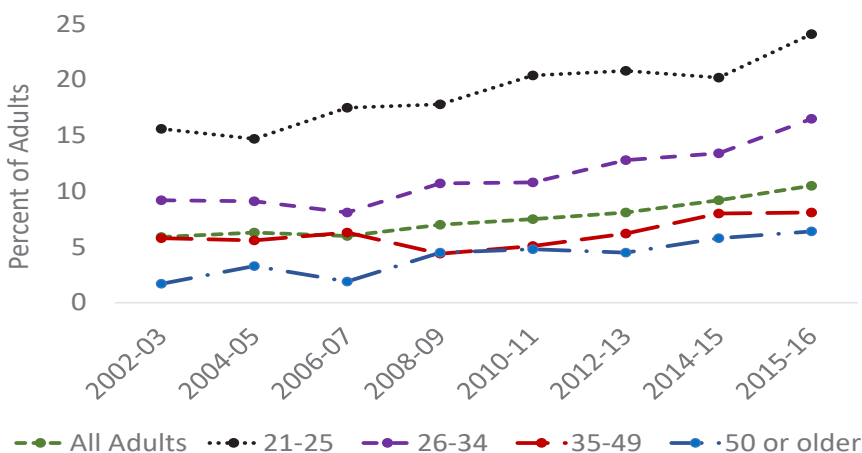
Data Sources:

Table: Behavioral Risk Factor Surveillance System, 2016 Figure: National Survey on Drug Use and Health, 2016

Table 6. Characteristics of current (past 30 days) adult cannabis users ages 21 years and older, 2016

	%	95% CI
Total	9.9	8.5-11.2
Gender		
Male	13.6**	11.3-15.9
Female	6.4	5.0-7.8
Age (years)		
21-25	22.5	14.9-30.0
26-34	13.4	9.9-16.8
35-49	7.6**	5.7-9.6
50+	6.7**	5.4-7.9
Race/Ethnicity		
White	12.3	10.4-14.3
Black	9.7	4.8-14.7
Hispanic	8.3	5.6-11.1
Asian/Pacific Islander	3.5**	1.8-5.3
Other	13.1	6.6-19.6
Education		
Less than High School	2.5**	1.5-3.5
High School/GED	12.4	8.3-16.6
Some College	13.9	10.9-16.9
College Graduate	8.7	7.0-10.4

Figure 5. Current (past 30 days) cannabis users ages 21 and older, 2002-2016



** Statistically significant difference compared to other groups

*Note: Estimation of current adult cannabis use is from two separate data sources (Behavioral Risk Factor Surveillance System and National Survey on Drug Use and Health). Due to similarity of estimations (~10%), both estimates are reported.

Current Adult Cannabis Use

In 2016, California adult cannabis users ages 21 years and older reported using cannabis on average 14.6 days per month. Among current (past 30 days) cannabis users, males (44.9 percent), adults ages 26-34 years (49.3 percent) and those with less than a high school education (56.5 percent) were more likely to be heavy users of cannabis, defined as using cannabis on 20 or more days per month (Table 7).

In 2016, smoking cannabis was the most common method of use, reported by 87.2 percent of current adult cannabis users ages 21 years and older. Male users were more likely to vaporize cannabis (33.7 percent) than female users (16.1 percent) (Table 8). Older adults (ages 50 years and older) were less likely to vaporize cannabis (17.6 percent). While smoking was the most common method of use for all ages, a greater proportion of adults ages 21-25 had smoked cannabis in the last 30 days (95.5 percent), compared to adults ages 50 and older (80.0 percent).

Data Source: Behavioral Risk Factor Surveillance System, 2016

Table 7. Characteristics of current users reporting heavy cannabis use (using 20 or more days in the last month) among adults ages 21 years and older

	%	95% CI
Total	43.2	36.2-50.2
Gender		
Male	44.9	35.9-53.8
Female	39.9	29.1-50.6
Age (years)		
21-25	32.5	15.6-49.5
26-34	49.3	35.7-62.9
35-49	45.4	32.2-58.6
50+	45.6	36.2-55.0
Education		
Less than High School	56.5	37.2-75.8
High School/GED	42.3	25.0-59.6
Some College	41.1	29.9-52.2
College Graduate	44.6	34.3-55.0

Note: Denominator is past 30 day users.

Table 8. Characteristics of current (past 30 days) adult cannabis users ages 21 years and older by methods of use, 2016

	% Smoke	95% CI	% Eat	95% CI	% Vape	95% CI	% Dab	95% CI
Total	87.2	83.3-91.1	29.9	23.5-36.2	27.8	20.7-35.0	16.7	9.5-24.0
Gender								
Male	89.3	85.4-93.1	32.2	23.9-40.4	33.7**	24.0-43.4	19.1	9.6-28.6
Female	83.0	74.4-91.7	25.3	16.0-35.4	16.1	10.2-22.0	12.0	1.6-22.3
Age (years)								
21-25	95.5	91.7-99.3	29.6	13.8-45.4	33.9	12.7-55.2	35.9	14.4-57.4
26-34	85.0	74.5-95.5	32.2	18.7-45.6	33.8	21.2-46.4	18.8	7.5-30.0
35-49	89.3	83.4-95.1	24.8	13.7-36.0	27.5	16.2-38.8	7.6	3.2-12.0
50+	80.0	72.2-87.7	32.2	22.9-41.6	17.6	10.3-24.8	5.4	0.1-10.7

Current Adult Cannabis Use

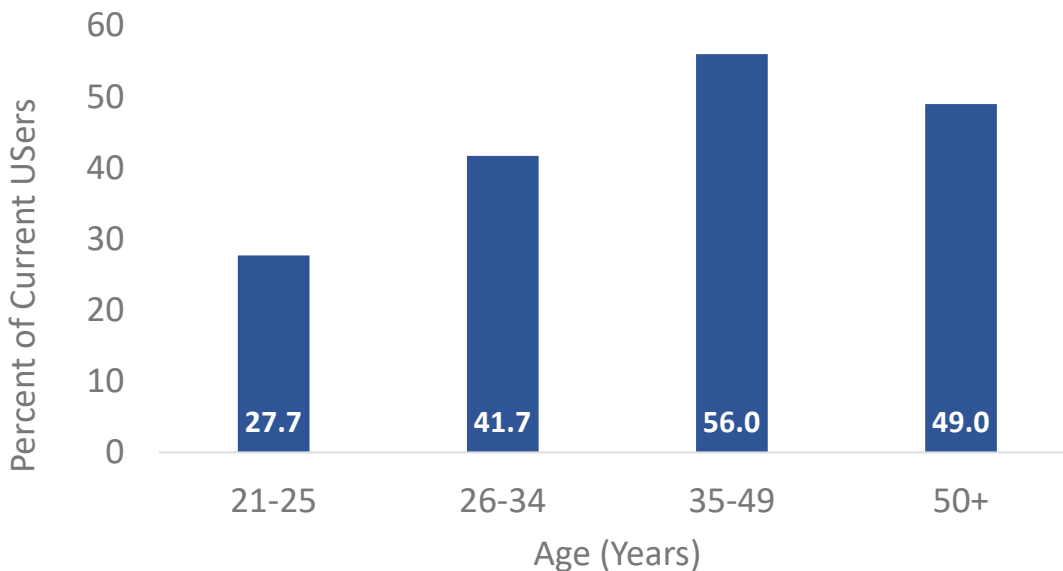
In 2016, among those who had used cannabis within the last 30 days (current users), 43.5 percent of adults ages 21 years and older reported a medical professional recommended their cannabis use (Table 9). More females (49.9 percent) than males (40.8 percent) reported that a medical professional recommended their cannabis use. (Table 9) More than half of White adult current users (52.4 percent) reported their use was recommended by a medical professional, the highest proportion of all race/ethnicity groups. Among current users, 27.7 percent of adults age 21-25 years reported a medical professional recommended their cannabis use, compared to 56.0 percent of 35-49 year olds and 49.0 percent of those aged 50 years and older (Figure 6).

Table 9. Characteristics of current adult cannabis users ages 21 years and older whose cannabis use in the last 30 days was recommended by a medical professional, 2016

	%	95% CI
Total	43.5	33.7-53.4
Gender		
Male	40.8	27.9-53.7
Female	49.9	38.1-61.6
Race/Ethnicity		
White	52.4	40.5-64.2
Black	29.7	8.2-51.2
Hispanic	28.4	10.4-46.5
Asian/Pacific Islander	29.2	3.1-55.2
Other	49.0	15.5-82.6

Data Source: Behavioral Risk Factor Surveillance System, 2016

Figure 6. Current adult cannabis users ages 21 and older whose cannabis use in the last 30 days was recommended by a medical professional, 2016



Adult Cannabis Perceptions

In 2015-2016, 36.2 percent of adults ages 21 years and older (including both users and non-users) reported there being great risk of harm from using cannabis 1 or 2 times per week. Perception of great risk of harm from using cannabis increases with age. In 2015-2016, the perception of great risk of harm among adults ages 50 years or older (42.0 percent) was more than two times that of the perception of adults 21-25 years old (18.8 percent) (Table 10). The race/ethnicity groups with the highest percent of adults who perceive great risk were Native Hawaiian and Other Pacific Islanders (58.9 percent), Asians (49.0 percent), and Hispanics (43.4 percent).

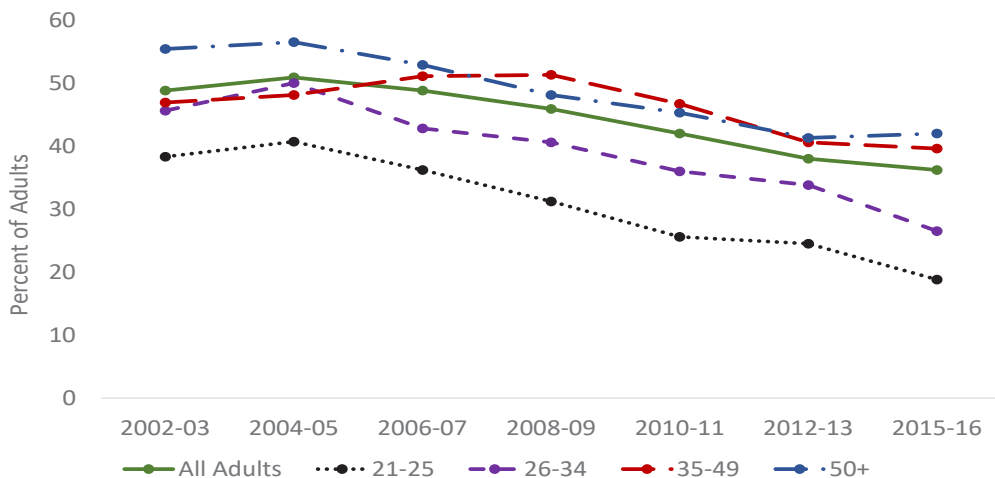
The perception of great risk of harm from using cannabis 1 or 2 times per week has declined among all adults ages 21 years and older, declining overall by 23 percent from 46.9 percent in the years 2002-2003 to 36.2 percent in 2015-2016 (Figure 7). The younger age groups (21-25 year olds and 26-34 year olds) show the steepest declines during this time period.

Data Source: National Survey on Drug Use and Health, 2016

Table 10. Characteristics of adults ages 21 years and older who perceive great risk of harm from using cannabis 1 or 2 times per week, 2015-2016

	%	95% CI
Total	36.2	34.2-38.2
Age (Years)		
21-25	18.8**	16.6-21.2
26-34	26.5**	23.6-29.6
35-49	39.6	36.6-42.7
50+	42.0	38.8-45.3
Gender		
Male	40.8	27.9-53.7
Female	49.9	38.1-61.6
Race/Ethnicity		
White	24.3**	22.2-26.7
Black	27.7**	22.9-33.0
Hispanic	43.4	41.1-45.8
Asian	49.0	44.6-53.5
NA/AN	36.7	21.3-55.4
NHOPI	58.9	41.7-74.1
Multiple races	21.0	13.4-31.4

Figure 7. Perception of great risk of harm from using cannabis 1 or 2 times per week among adults ages 21 and older, 2002-2016



** Statistically significant difference compared to other groups. Notes: NA/AN= Native American/Alaska Native; NHOPI = Native Hawaiian/Other Pacific Islander.

Cannabis-Positive Drivers Involved in Fatal Motor Vehicle Crashes

In 2016, 3,837 people were killed in 3,540 fatal motor vehicle crashes (MVCs) on California roadways. These fatal MVCs involved 5,293 drivers, 1,012 pedestrians, and 156 cyclists.

In California, cannabis was the most common drug type detected among drivers who were involved in a fatal MVC in 2016 and were tested for drugs. Cannabis was the second most common drug type detected among pedestrians and cyclists who were involved in a fatal MVC in 2016 and were tested for drugs.

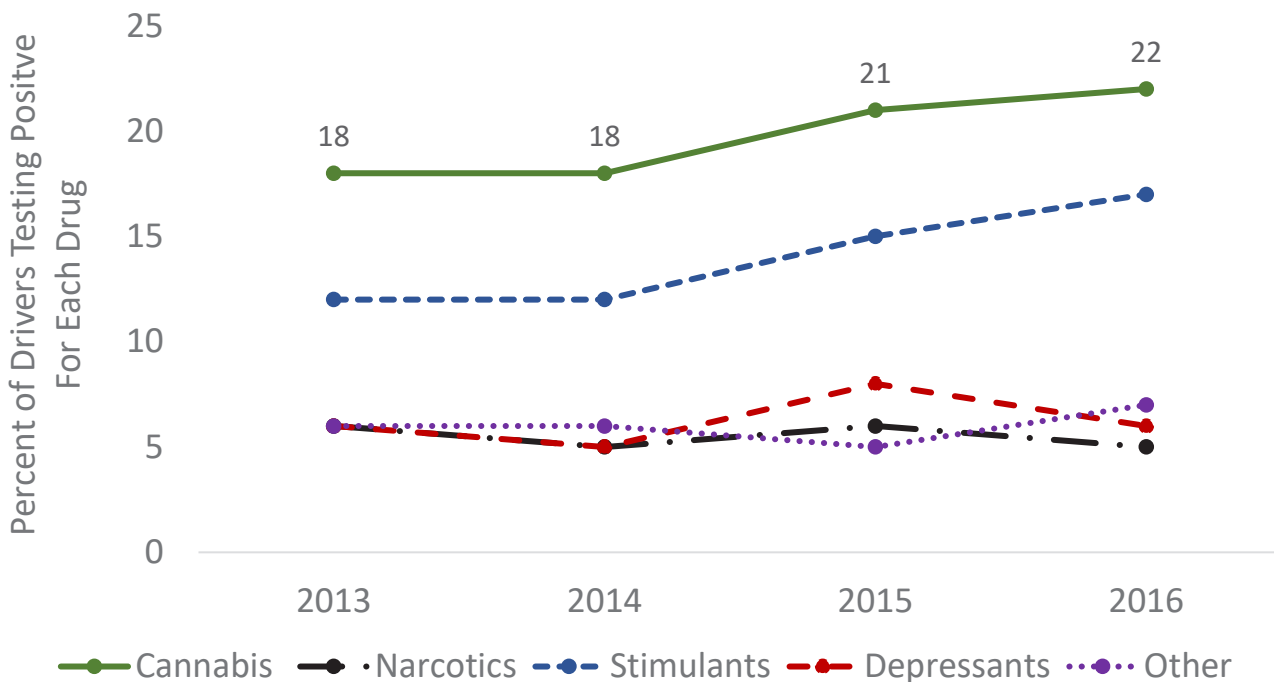
In 2016, of the 2,266 drivers involved in fatal MVCs who were tested for drugs, 500 (22 percent) tested positive for cannabis.

Of the 739 pedestrians involved in fatal MVCs who were tested for drugs, 120 (16 percent) tested positive for cannabis. Of the 119 cyclists involved in fatal MVCs and were tested for drugs, 32 (27 percent) tested positive for cannabis.

Between 2013 and 2016, the percentage of California drivers involved in fatal MVCs who were tested for drugs and tested positive for cannabis, increased from 18 percent to 22 percent (Figure 8).

Data Source: Fatality Analysis Reporting System, 2013-2016

Figure 8. Drug types among drivers involved in a California fatal motor vehicle crash who were tested for drugs, 2013-2016.



Cannabis Seizures by the Drug Enforcement Administration

In 2016, the Drug Enforcement Administration (DEA) seized 3,777,937 cultivated cannabis plants (indoor and outdoor) in California. The average number of plants seized among other states was 35,690. The number of plants seized in California was more than 100 times the average in other states. The total number of cultivated plants seized in California accounted for 70.6 percent of seizures in the United States (Table 11). The bulk processed cannabis seized in California accounted for a large share of the United States' seizures (63.1 percent). In addition, the DEA eradicated 2,117 grow sites in California.

Data Source: United States Drug Enforcement Administration

Table 11. Cannabis seizures by the Drug Enforcement Administration, 2016

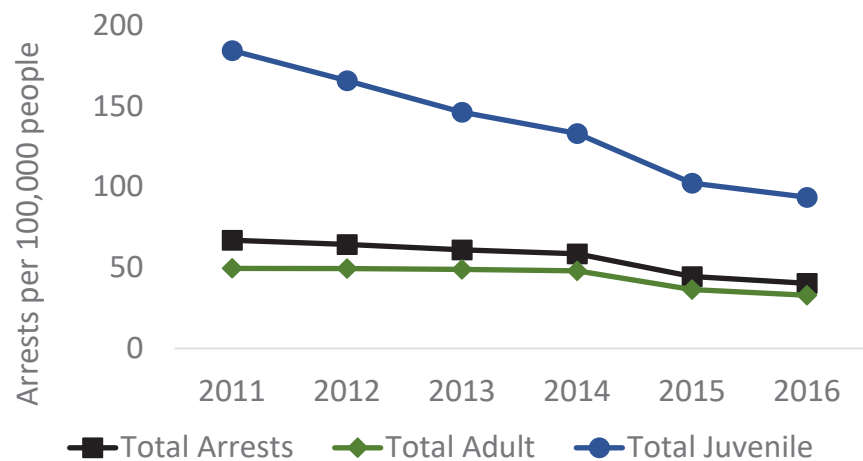
	Number	% of US Seizures
Cultivated Plants Seized	3,777,937	70.6
Indoor plants	312,909	77.1
Outdoor plants	3,465,028	70.1
Eradicated Grow Sites		
Indoor	634	34.0
Outdoor	1,483	26.8
Bulk Processed Cannabis Seized	75,060 lbs	63.1

Cannabis Related Arrests

In 2016, there were 13,810 felony and misdemeanor arrests for a cannabis offense amongst adults and juveniles in California. Juvenile arrest rates, which are higher than adult arrest rates, declined at a faster rate from 186.1/100,000 in 2011 to 95.4/100,000 in 2016* (Figure 9). Overall, arrest rates among males (58.6/100,000) are more than five times that of females (11.3/100,000). Those under the age of 20 years have the highest total arrest rate (95.4/100,000). Blacks (89.9/100,000) have the highest overall arrest rates compared to Hispanics (34.6/100,000) and Whites (31.9/100,000)* (data not shown in a table or figure).

Data Source: California Department of Justice (DOJ) 2016.

Figure 9. Rates of arrests for a cannabis offense among adults and juveniles, 2011-2016

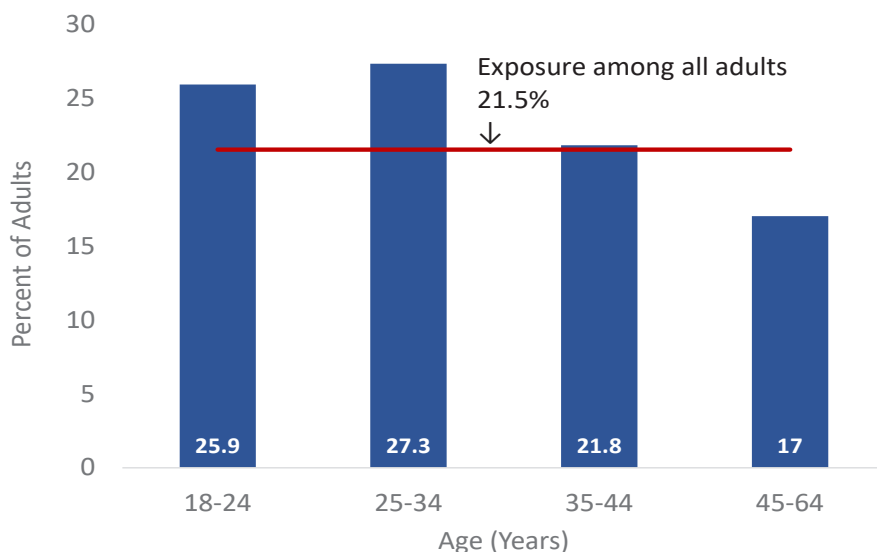


*All rates are age-adjusted based on the CA Dept. of Finance 2016 CA population estimates and the CA DOJ "at-risk" population and standardized to the 2000 U.S. Standard Population.

Secondhand Cannabis Smoke Exposure

In 2016, 21.5 percent of adults ages 18 and older reported exposure to secondhand cannabis smoke in the past two weeks in California. Exposure to secondhand cannabis smoke is highest among adults ages 25-34 (27.3 percent) and decreases with age. Adults ages 45-64 report the least exposure to secondhand cannabis smoke (17 percent) (Figure 10).

Figure 10. Secondhand cannabis smoke exposure among adults ages 18 and older in the past two weeks in California



Data Source: California Adult Tobacco Survey, 2016

Cannabis-Related Poison Control Center Calls

In 2016, there were 849 calls to Poison Control Centers (PCC) in California related to human exposure of cannabis. Nearly half of calls (47.5 percent) related to cannabis were regarding exposures to Californians under the age of 20 (Table 12). Calls regarding exposures to Californians 0-5 years old were mostly

for unintentional exposures to cannabis (97.3 percent). Most of the calls for 6-19 year olds and individuals aged 20 and older were regarding intentional exposures to cannabis, at 70.3 percent and 60.4 percent, respectively.

Data Source: California Poison Control System, 2016

Table 12. Type of cannabis-related calls to California Poison Control Centers by age, 2016

	Total Exposures	Unintentional Exposures (%)	Intentional Exposures (%)	Other
Total	849	34.8	52.9	12.2
Age (years)				
0-5	148	97.3	0	2.7
6-19	256	20.3	70.3	9.4
20+	439	22.3	60.4	17.3

Note: Unknown age cases not shown. Definitions: Unintentional = exposure that is unforeseen or unplanned; Intentional = exposure resulting from purposeful action; Other = exposure resulting from adverse reaction, malicious actions, contamination/tampering, or other.

Cannabis-Related Emergency Department Visits

In 2016, there were 118,010 non-fatal emergency department (ED) visits (age-adjusted rate = 295.2 per 100,000), with *any mention* of a cannabis diagnosis. In 2016, 52 percent of visits with *any mention* of a cannabis diagnosis had a diagnosis for cannabis abuse, 40 percent for cannabis use, 5 percent for cannabis dependence, and 3 percent for cannabis poisoning. In 2016, there were 8,838 non-fatal ED visits (age-adjusted rate = 22.2 per 100,000), with a *primary diagnosis* related to cannabis (Table 13). Among ED visits with a *primary diagnosis* related to cannabis, 49.0 percent were for cannabis abuse. Most ED visits for children ages 0-9

(78.0 percent) were for cannabis poisoning. Those 18-20 years of age had the highest rate of ED visits for cannabis (71.7/100,000); after which, rates of ED visits decline with age. Overall, Blacks had the highest rate of ED visits (56.5/100,000) compared to other races/ethnicities.

Data Sources: Office of Statewide Health Planning and Development Emergency Department Data, 2016. Rates by gender, age, and race/ethnicity were calculated using the 2016 CA population estimates from the California Department of Finance. Age-adjusted rates are standardized to the 2000 U.S. Standard Population.

Table 13. Characteristics of ED visit patients with a *primary diagnosis* related to cannabis, 2016

	Rate /100,000	Visits n	Abuse %	Dependence %	Use %	Poisoning %
Total	22.2*	8,838	49.0	2.6	26.2	22.3
Gender						
Male	26.6	5,201	53.1	3.0	25.3	18.6
Female	18.4	3,637	43.2	1.9	27.4	27.5
Age (years)						
0-9	1.8	91	9.9	1.1	11.0	78.0
10-17	55.4	2,272	52.2	0.9	28.0	18.9
18-20	71.7	1,360	53.8	2.7	26.8	16.8
21-25	47.9	1,436	52.1	4.5	25.0	18.4
26-34	31.5	1,526	50.6	3.2	26.0	20.2
35-49	14.5	1,121	45.9	2.6	25.2	26.4
50+	8.1	1,121	36.2	2.2	25.4	36.1
Race/ Ethnicity						
White	21.0	2,749	46.1	2.5	26.7	24.7
Black	56.5	1,325	53.4	3.6	23.4	19.6
Hispanic	24.6	3,717	50.9	2.2	26.4	20.6
API	6.9	402	38.1	2.5	31.8	27.6
NA/AN	19.1	36	38.9	8.3	36.1	16.7

Notes: Unknowns are excluded. API = Asian/Pacific Islander; NA/AN = Native American/Alaska Native.

*Age-adjusted rate. Abuse, Dependence, Use and Poisoning are defined by the International Classification of Diseases (ICD-10) and recorded upon ED admission.

Cannabis-Related Hospitalizations

In 2016, there were 102,089 non-fatal hospitalizations (age-adjusted rate = 252.1 per 100,000) with *any mention* of a cannabis diagnosis. Hospitalization rates with *any mention* of a cannabis diagnosis increased from 94.8/100,000 in 2007 to 252.1/100,000 in 2016. In 2016, 48 percent of these hospitalizations had a diagnosis for abuse, 40 percent for use, 11 percent for dependence, and 1 percent for poisoning. In 2016, there were 683 non-fatal hospitalizations (age-adjusted rate = 1.71 per 100,000) with a *primary diagnosis* related to cannabis (Table 14). More than one third of hospitalizations with a *primary diagnosis* related to cannabis were for cannabis abuse (34.1 percent).

Most hospitalizations for children ages 0-9 (93.9 percent) were for cannabis poisoning. The rate of hospitalizations peaked with the 18-20 year old age group (5.2/100,000) and declined with age. Overall, Blacks had the highest rate of hospitalizations (5.3/100,000) compared to other races/ethnicities.

Data Sources: Office of Statewide Health Planning and Development Patient Discharge Data, 2016. Rates by gender, age, and race/ethnicity were calculated using the 2016 CA population estimates from the California Department of Finance. Age-adjusted rates are standardized to the 2000 U.S. Standard Population.

Table 14. Characteristics of patients hospitalized with a *primary diagnosis* related to cannabis, 2016

	Rate /100,000	Visits n	Abuse %	Dependence %	Use %	Poisoning %
Total	1.71*	683	34.1	22.3	17.7	25.9
Gender						
Male	2.3	446	33.0	25.8	19.5	21.8
Female	1.2	237	36.3	15.6	14.4	33.8
Age (years)						
0-9	1.3	65	4.6	0	1.5	93.9
10-17	1.9	79	26.6	29.1	25.3	19.0
18-20	5.2	98	32.7	29.1	24.5	9.2
21-25	4.3	128	45.3	33.7	15.6	9.4
26-34	2.4	117	47.9	29.7	18.0	12.8
35-49	1.1	87	39.1	21.4	12.6	24.1
50+	0.9	109	26.6	11.0	22.0	40.4
Race/ Ethnicity						
White	1.8	266	30.1	21.4	21.8	26.7
Black	5.3	124	37.1	25.8	15.3	21.8
Hispanic	1.4	209	34.0	20.6	15.3	30.1
API	0.5	29	34.5	31.0	17.2	17.2

Notes: Unknowns are excluded. API = Asian/Pacific Islander. *Age-adjusted rate. Abuse, Dependence, Use and Poisoning are defined by the International Classification of Diseases (ICD-10) and recorded upon hospital admission.

Number of People with Cannabis Abuse or Cannabis Dependence

In 2015-2016, 676,000 Californians ages 12 years and older reported having cannabis abuse or dependence in the last year. The number of Californians meeting the criteria for having cannabis abuse or cannabis dependence has increased from 483,000 in 2002-2003 to 676,000 in 2015-2016, a 40 percent increase (Figure 11). Among those with cannabis abuse or cannabis dependence, 22,000 (3.2 percent) reported receiving treatment for cannabis in 2015-2016.

In 2016-2017, 17,782 individuals were admitted to publicly funded treatment programs in California primarily for cannabis. More than two-thirds of these individuals were male (68.8 percent) and more than half (54 percent) were Hispanic. Most of these individuals were under the age of 25 years (61.8 percent), with the largest proportion ages 17 years and younger (41.0%) (data not shown in a figure or table).

Figure 11. Number of Californians ages 12 and older with cannabis abuse or cannabis dependence, 2002-2016

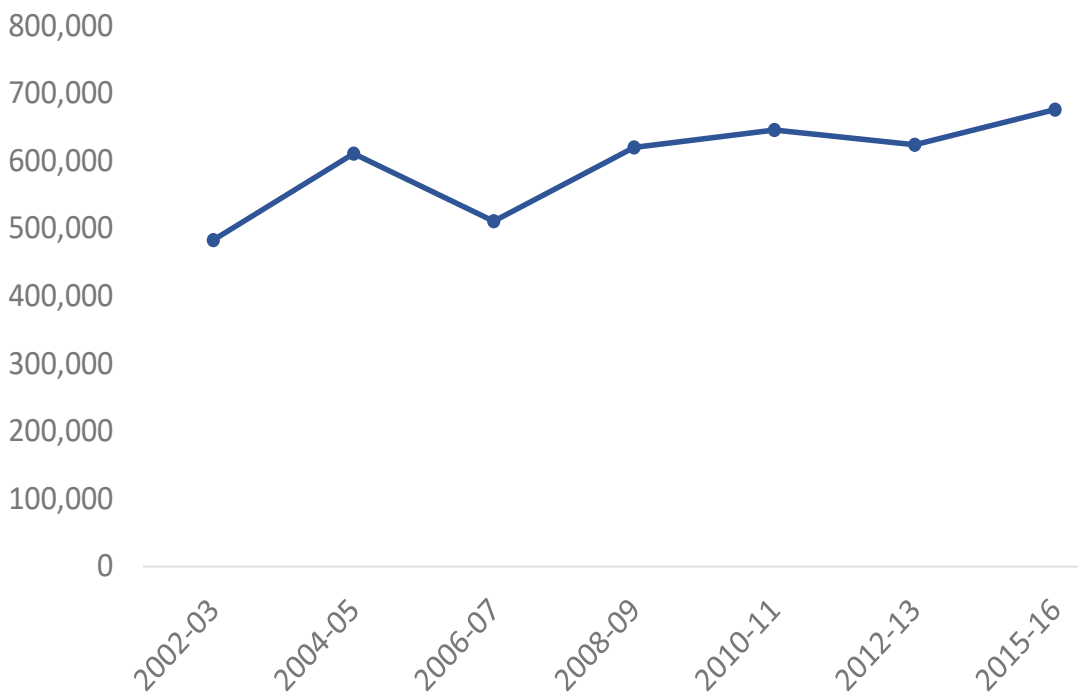
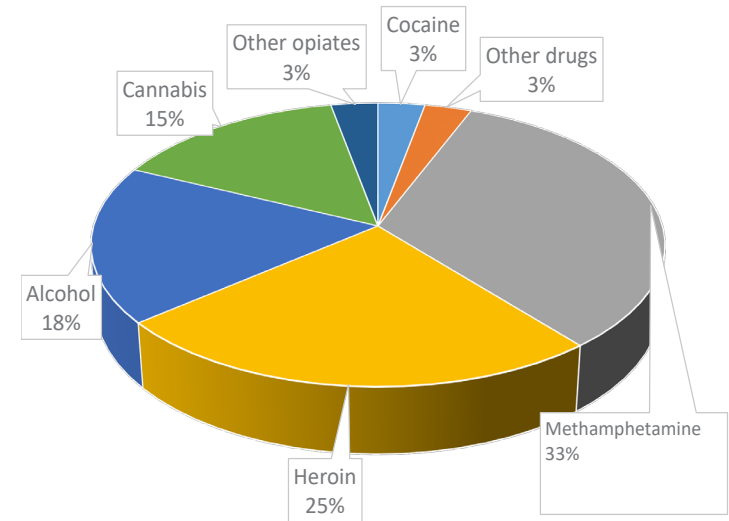


Figure 12. Primary drug reported at admission to publicly funded substance use disorder treatment programs in California, 2016-2017



In California, among adults admitted to substance use treatment at publicly-funded treatment centers in 2016-2017, cannabis was the primary drug of concern among 15 percent of individuals (Figure 12, above).

Data Sources: (Fig. 11) National Survey on Drug Use and Health, 2016; (Fig. 12) California Outcomes Measurement System Treatment, Department of Health Care Services, 2017.

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California Cannabis Surveillance System