



Data Sources for Marijuana Public Health Surveillance *Strengths and Challenges*

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Setting the Stage – 1

- Supply

- Laws and policies (e.g., medical marijuana; initiative)
- Cultivation (e.g., water, land, toxic by-products)
- Distribution (e.g., transport routes, wholesale/retail)
- Marketing (4 Ps – Product, Price, Place & Promotion)
- Sales (e.g., dispensaries, volume, tax revenues)
- Drug seizures (e.g., High Intensity Drug Trafficking Areas; Regional Criminal Information Clearinghouse)

- Demand

- Consumption (e.g., self report surveys; National Drug Early Warning System - NDEWS)
- Risk and protective factors (e.g., self report surveys)
- Special populations (e.g., youth)

Setting the Stage – 2

- Consequences - Multiple domains
 - Child welfare (e.g., perinatal substance exposure)
 - Criminal justice (e.g., arrests)
 - Economics (e.g., economic burden)
 - Education (e.g., academics, drug suspensions)
 - Family (e.g., dysfunction, poly-drug use)
 - Health (e.g., deaths, hospitalizations, ED visits)
 - Mental health (e.g., Substance Use Disorder)
 - Poisoning (e.g., Poison Center calls)
 - Traffic safety (e.g., drug impaired driving)
- Treatment Services
 - Public and private
- Recovery and Re-entry

Youth Prevalence Data Example

Student Marijuana Use in Lifetime by Grade Level, California, 2011-2012

Grade Level	Percentage	
	Never Used	Used 1+ Times
7th Grade	90.0%	9.9%
9th Grade	74.2%	25.7%
11th Grade	58.1%	41.9%
Non-Traditional	27.2%	72.8%
All	72.2%	27.9%

Data Source: California Department of Education, California Healthy Kids Survey and California Student Survey (WestEd); Retrieved from <http://www.KidsData.org>

International Classification of Diseases (ICD) Coding

- **Deaths – ICD-10: 1999 - Present**

- Poisoning Codes X40-X44, X60-X65, X85, Y10-Y14
 - T40.7 Poisoning by Cannabis (derivatives) (Multiple Cause of Death file)
- Mental and Behavioral Disorders Due to Psychoactive Substance Use
 - F12.10X-9, Cannabis abuse
 - F12.20X-9, Cannabis dependence

- **Hospitalizations/Emergency Department - ICD-9-CM: 1991-2015**

- Non-specific Poisoning Codes
 - 969.6 Poisoning by Psychodysleptics, (hallucinogens)
 - E854.1 Poisoning by Psychodysleptics, (hallucinogens) unintentional (accidental)
- Mental and Behavioral Disorders due to Psychoactive Substance Use
 - 305.2 Cannabis non-dependent abuse
 - 304.30-2 Cannabis dependence

International Classification of Diseases (ICD) Coding

Hospitalizations/ED data - ICD-10-CM: 2015-16+

- Poisoning Codes
 - T40.7X1A Poisoning by cannabis (derivatives), unintentional (accidental), initial encounter
 - T40.7X2A Poisoning by cannabis (derivatives), intentional self-harm, initial encounter
 - T40.7X3A Poisoning by cannabis (derivatives), assault, initial encounter
 - T40.7X4A Poisoning by cannabis (derivatives), undetermined, initial encounter
- Mental and Behavioral Disorders Due to Psychoactive Substance Use
 - F12.10X-9, Cannabis abuse
 - F12.20X-9, Cannabis dependence

Non-Fatal Emergency Department Visits Example

The screenshot shows the EpiCenter website interface. At the top, there is a navigation bar with the following items: "Overall Injury Surveillance", "Selected Injury Topics", "Injury Data Summaries", "Traumatic Brain Injuries", "Violent Death Circumstances", "Alcohol/Drug Consequences", "Population Data", and "Linked Crash-Medical Data". The "Alcohol/Drug Consequences" menu item is circled in blue. Below the navigation bar, the main content area features a sidebar on the left with links like "About our data", "Tell us how you use our data", "Help with building tables", "Help with ICD-9 and ICD-10 codes", "EpiCenter Home", "CDPH Home", "SAC Branch Home", and "Contact Us". The main content area has a header that reads "2013 Death data and 2014 Hospital and ED data now available! Build Your Own Tables". Below this header, there are three columns of content. The first column contains links for "Overall Injury Surveillance", "Traumatic Brain Injury (TBI)", "California Electronic Violent Death Reporting System", "Alcohol and Other Drug (AOD) Health Consequences", and "Linked Crash-Medical Data". The "Alcohol and Other Drug (AOD) Health Consequences" link is circled in blue. The second column contains a link for "Selected Injury Topics" and a list of injury types: Assault (homicide), Bicycle, Firearm, Heat, Motor vehicle occupant, Pedestrian, Self-inflicted (suicide), Senior falls, Assaults on females, and Intimate partner assaults on females. The third column contains a link for "Injury Data Summaries" and a list of topics: Injuries by Cause and Age, Top Five Causes of Injuries, and Injury Trends. At the bottom of the page, there is a footer with text: "EpiCenter was designed by the Safe and Active Communities Branch and constructed by the Information Technology Services Division of the California Department of Public Health. We are grateful to the funders whose generosity made EpiCenter possible." and logos for "the David", "The", and "CDC".

- About our data
- Tell us how you use our data**
- Help with building tables
- Help with ICD-9 and ICD-10 codes
- EpiCenter Home
- CDPH Home
- SAC Branch Home
- Contact Us

Alcohol and Other Drug Health Consequences

Data on the health consequences of alcohol and other drugs (AOD) are now available for deaths, hospitalizations and emergency department (ED) visits. Only drugs with the potential to cause substance use disorders or abuse and dependence are included (e.g., excludes anti-depressants). Health consequences include AOD poisoning (overdoses), mental disorders, and physical diseases 100% attributable to AOD, but not indirect consequences of AOD (e.g., motor vehicle injuries due to AOD impairment).

For deaths, the underlying cause of death is used to identify mental disorders and physical diseases, but multiple cause of death diagnoses are used to capture drug overdoses. This can lead to more than one substance diagnosis per death, thus the sum of the specific substance categories may be greater than the total number of overdose deaths. For hospital discharges and ED visits, AOD consequences can be displayed in two ways. "Principal diagnosis" includes only cases where the AOD diagnosis was the main or most serious condition. "Any mention of AOD" includes all cases with a diagnosed alcohol or drug condition, whether diagnosed as principal or secondary. For "Any mention" queries, more than one substance-related diagnosis may be found. Thus the sum of the specific substance categories may be greater than the total number of cases. In addition, numbers are based on treatment episodes, not individuals. Therefore an individual may be counted more than once in the same year. For more information on the methodology and criteria used, go to [Help](#).

This query was developed with assistance and partial funding from the Substance Use Disorder Prevention, Treatment and Recovery Services Division, California Department of Health Care Services through a SAMHSA SFP-SIG grant. **2013 Death data and 2014 Hospital and ED data now available!**

[Submit](#) [Reset Choices](#)

Outcome: Deaths
 Non-fatal Hospitalization
 Non-fatal Emergency Department Visit (treat & release, or transfer to another facility)

Show Crude Rates
Population data based on 2010 Census estimates. See [Help](#).

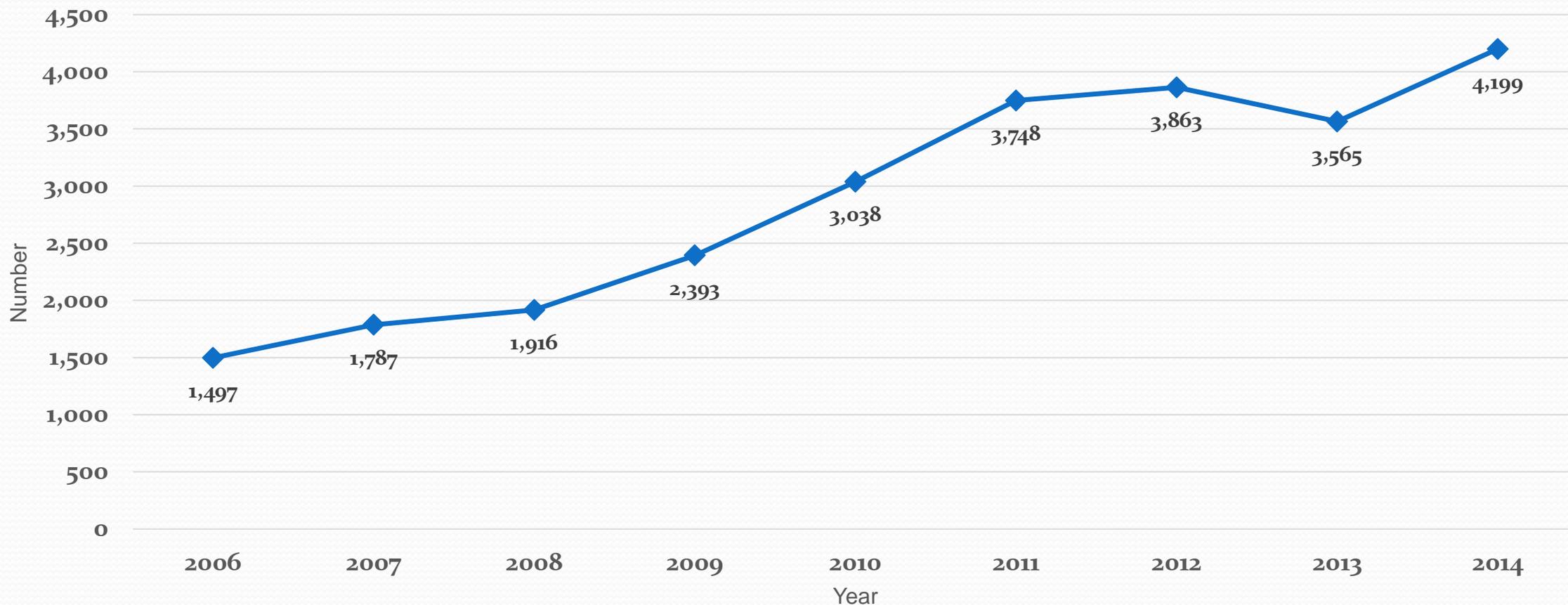
Year: From through

County of Residence: If selecting multiple counties, hold down the Control key (Mac key for Mac users).
Alameda
Alpine
Amador

Race/Ethnicity: If selecting multiple race/ethnicities, hold down the Control key (Mac key for Mac users).
White
Black
Hispanic

Age: All Ages

Non-Fatal Emergency Department Visits for Cannabis, California, 2006-2014



Source: California Office of Statewide Health Planning and Development, Emergency Department Data; Prepared by: California Department of Public Health, Safe and Active Communities Branch.

ICD-9-CM codes: 304.3 cannabis dependence; 305.2 cannabis non-dependent abuse

Potential New Data Sources

- Consumption
 - New questions added to:
 - Behavioral Risk Factor Survey
 - Adult/Student Tobacco Surveys
 - Youth Risk Behavioral Factor Survey
 - California Health Interview Survey
- Consequences
 - Drug Impaired Driving (SWITRS and FARS)
 - ABC/Law Enforcement (Shoulder Tap)



THANK YOU

If time permits: QUESTIONS?

Contact: swirtz@cdph.ca.gov