MARIJUANA IMPACTS AMONG YOUTH & EMERGING TRENDS IN USE

San Diego County Marijuana Prevention Initiative

Funded by the County of San Diego, Health and Human Services Agency, Behavioral Health Services
Problem Statement: High levels of marijuana use by youth (12-25) in the county negatively affect overall health and contributes to family and community problems.

Goal: Develop Countywide Marijuana Prevention Initiative strategic campaigns on an annual basis to reduce marijuana use by youth throughout the region.
OVERVIEW OF PRESENTATION

- Introduction to Local Data (CHKS)
- Introduction to State and National Research
- Treatment Rates, Adolescent brain and “your future”
- Impacts of Driving “High” and Butane Hash Oil
- Rusty Bower – Modern Marijuana; THC Potency, Vaping, Social Media, Special Events and Prevention Efforts
There are **694,561** youth between the ages of 10-24 in San Diego County. This equates to 22% of the County's total population (N=3,095,313).

- **10-14** = 198,716 (6.4%)
- **15-19** = 225,095 (7.3%)
- **20-24** = 270,750 (8.7%)
These 3 Counties were historically the largest cannabis producing region in the United States.

- Humboldt County
- Trinity County
- Mendocino County
YOUTH MARIJUANA USE IN SAN DIEGO COUNTY
21% of 11th graders reported smoking marijuana in the past 30 days in 2011.

The percentage of 9th and 11th graders who smoked marijuana in the last 30 days has increased by 50% and 40%, respectively, since 2007.

Nearly half of non-traditional students reported smoking marijuana in the past 30 days in 2011.

Source: CHKS, 1999-2011
Daily marijuana use among 9th and 11th graders is at its highest point in 12 years.

Since 2007, the percentage of 9th and 11th graders smoking marijuana every day has doubled.

18% of non-traditional students smoke marijuana every day.

Source: CHKS, 1999-2011
NATIONAL CURRENT USE, ACCESS, AND PERCEIVED RISK

Source: University of Michigan, Monitoring the Future Survey

Report that it is "fairly easy" or "very easy" to get marijuana

Report "great risk" in regular use

Report use in past 30-days

Percent of 12th graders

Source: University of Michigan, Monitoring the Future Survey
Almost 25% of high school students in the SDUSD reported using marijuana in the past 30 days.

About 8% have smoked marijuana on school property in the past 30 days in 2011. This has increased 4% since 2009.

Nearly 11% of high school students first tried marijuana before they were 13 years-old.

Source: CDC - YRBSS, 2011
YOUTH ACCESS TO MARIJUANA AND PERCEPTION OF HARM IN SAN DIEGO COUNTY
ACCESS TO MARIJUANA AMONG SAN DIEGO COUNTY YOUTH

Percentage of students who reported that it is “fairly easy” or “very easy” to get marijuana.

Source: CHKS, 2003-2011
The percentage of students who believe that smoking marijuana is very harmful is declining.

Approximately half of 7th, 9th, and 11th graders do not believe that people greatly risk harming themselves when smoking marijuana once or twice a week.

9th and 11th graders perceive occasional marijuana smoking as less harmful than occasional cigarette smoking.

Source: CHKS, 2009-2011
TREATMENT RATES FOR MARIJUANA ADDICTION AMONG SAN DIEGO COUNTY YOUTH
Lady Gaga: "I Did a Lot of Drugs"

A day after Miley Cyrus smoked a joint on stage at the European Music Awards, Lady Gaga opening up about what she believes is a dangerously addictive quality of marijuana.

"You actually can become addicted to it," the 27-year-old singer told Elvis Duran on New York's Z100 Monday. "I have been addicted to it. ... I was smoking up to 15, 20 marijuana cigarettes a day with no tobacco. I was living on a totally other psychedelic plane, numbing myself completely. ... I had to stop."

The best and worst TV reboots

But marijuana apparently wasn't her only vice. "I've been addicted to various things since I was young, most heavily over the past seven years," she said during the radio interview. "A friend gave me this term, 'lily pad' from substance to substance because I get to a point where I can't go any further with one substance so I move to another."

Gaga said her drug use spiraled out of control around the same time that a hip injury forced her to scrap most of the dates on her Born This Way Ball tour. "I was just in a lot of pain and really depressed all the time and not really sure why," she told Duran. "I was not very good at breaking ... I was in a wheelchair for six months. I did a lot of drugs and took a lot of pills."

Our favorite TV small towns

With her new record, ARTPOP, out now, she insists those days are behind her. "I have to be high to be creative," she tells Duran. "Can I be brilliant without it? I know that I can be and I have to be because I want to live, and I want my fans to want to live."

Gaga played a secret show in Brooklyn Sunday night to celebrate the release of ARTPOP on Monday, according to The Associated Press. There, she unveiled what she calls "the world's first flying dress," a battery-powered metal gown she calls Volantis.
PERCENTAGE OF YOUTH TREATMENT ADMISSION RATES BY GENDER & AGE RANGE

MARIJUANA AS PRIMARY DRUG OF CHOICE - SAN DIEGO COUNTY TREATMENT PROGRAMS

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MARIJUANA AS PRIMARY DRUG OF CHOICE - SAN DIEGO COUNTY TREATMENT PROGRAMS
Over half (53%) of the 124 juvenile arrestees tested positive for marijuana.

66 percent had received treatment for marijuana, 61 percent for alcohol, 24 percent for meth, 18 percent for cocaine/crack, 13 percent for heroin, and 13 percent for other substances.

When asked what drugs their parents used the most common response included marijuana (79%), meth (42%), cocaine/crack (18%), and heroin (15%) (not shown).
IMPACTS OF YOUTH MARIJUANA USE
Critical growth phases take place at the following times:

- In Utero
- 0-3 years
- Adolescence (12-25)

“The brain is particularly susceptible at these critical times to environmental influences”.

The adolescent brain continues to develop well into their mid 20s.

Adolescence is a crucial time in people’s lives, both academically and developmentally.

Marijuana affects the frontal lobe of the brain.
Executive Functions

- Ability to recognize future consequences resulting from current actions
- Choose between good and bad actions (or better and best)
- Override and suppress socially unacceptable responses
- Determine similarities and differences between things or events
- Retaining longer term memories which are not task-based
Marijuana use is associated with:

- Attention and memory problems
- Slower brain processing
- Difficulty problem-solving
- High rates of skipping class
- Low GPAs
- Lower rates of college entrance
- Failure to complete college

Sources: Arria et al., 2013; Fergusson et al. 2003; Hunt et al., 2010; Medina et al., 2007; SAMHSA, 2009
DRUG TESTING AND FUTURE EMPLOYMENT

“Limiting your Future”

- Department of Defense – All Branches
- All Federal Government
- State of CA Department of Parks and Recreation
- San Diego County
- City of San Diego
- Driver/pilot/train conductor (airlines, Amtrak, bus services, trucking, shuttles, etc.)
- San Diego Unified Port District
LOCAL EMPLOYERS THAT DRUG TEST

- Sea World
- San Diego Zoo
- Hilton
- Westgate Hotels
- Rancho Valencia Resort and Spa
- Stone Brewing Company
- Grande Colonial (NINE-TEN Bar)
- Best Buy
- United Health Group
- San Diego Home Caregivers
- SDGE
- McDonalds

Pot Use May Be Limiting Your Future

Did you know that using marijuana can hurt your career plans?

- Heavy marijuana use is associated with higher rates of skipping class, lower GPAs, and failure to complete college.1
- Colleges that receive federal funding do not allow marijuana use, sale or possession on campus even with a medical recommendation.
- All athletic organizations including Major League Baseball the NFL, NBA, NHL and Olympics have drug testing requirements.
- Many local employers such as Sea World, San Diego Zoo, Hilton, Macy's, Best Buy and San Diego Gas and Electric have pre-employment drug testing.
- All Federal Government employees, including those at the Department of Defense and Department of Transportation, and anyone that drives a commercial vehicle is subject to random drug testing.
- Both San Diego County and the City of San Diego have pre-employment drug testing.

Remember that your actions today may affect your options tomorrow.

If you need to talk to someone about your marijuana use, call the access & crisis line (888) 724-7240.

MPI
Marijuana Prevention Initiative
San Diego County

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San Diego County Marijuana Prevention Initiative

LOSS OF POTENTIAL
“It doesn’t matter how good the teacher is, if the student does not come to school”
IMPORTANCE OF EDUCATION

“Earning gaps between young people with and without college degrees was the widest in nearly 50 years.

People with only High School educations were far more likely to be unemployed and to live in poverty than those with College degrees.”
Middle and high school students (ages 12-17) with a “D” or “F” average reported using significantly higher rates of marijuana use in the past month than those with a “C” average or higher (SAMHSA, 2009).

Young adults (ages 18-23) who did not complete high school reported significantly higher rates of current marijuana use than those who completed high school (SAMHSA, 2009).
“The study found that currently engineering, information technology, data analytics and skilled trades present the biggest skills gaps, and these gaps are expected to persist for at least the next 5 to 10 years”.

The Bureau of Labor and Statistics
The need for degrees and skills in fields such as:

- Engineering
- Biological Sciences
- Computer and Information Sciences
- Skilled Trades

Jobs that are highly skilled and require attention, memory, problem solving, motivation and attention to detail.
The earlier teens start smoking marijuana, the greater the likelihood there will be a deficit in learned social behaviors such as:

a. Anger management skills
b. Stress management skills
c. Patience

- Smoking marijuana is significantly associated with the onset of psychotic disorders, particularly schizophrenia (Large et al., 2011; Moore et al., 2007; Veen et al., 2004; Semple et al., 2005).
“Your brain, like your body needs exercise”!

Marijuana and other substances embed themselves into the developing brain and interfere with the natural formation of coping skills/mechanisms.

- **Traumatic event + development of normal coping skills** = brains ability to adapt to stressful situations as an adult.

- **Traumatic event + marijuana to alleviate stress** = the reliance on marijuana when stressful events happen as an adult.
MARIJUANA AND DRIVING
Attempt to justify bad behavior by comparing it to other bad behavior!

Are we doing a good enough job controlling alcohol intoxication on our roadways?

- Fatal crashes in 2011, the highest percentage of drunk drivers were for drivers ages 21 to 24 (32 percent), followed by ages 25 to 34 (30 percent) and 35 to 44 (24 percent).


http://www.madd.org/statistics/#sthash.NKn1njtH.dpuf
Severe driving impairment is observed with high doses, chronic use, and in combination with low doses of alcohol.

Driving under the influence of THC is associated with:

- Impaired time and distance estimation
- Increased reaction times
- Lack of motor coordination
- Decreased car handling performance
- Inability to maintain headway
- Increased lateral travel (weaving out of one’s lane)
- Subjective sleepiness

Source: Couper and Logan, 2004
Driving Under the Influence (DUI) (California Vehicle Code §23152(a))

In California, it is illegal to operate a motor vehicle under the influence of any substance, lawfully possessed or not, if the substance used causes physical or mental impairment that makes a person unable to drive safely.

Medical marijuana users must be aware that they are not exempt from DUI laws by reason of their medical status.
Only 11% of people who tested positive for THC in the California Roadside Survey believe that driving under the influence of marijuana is harmful.

- In California there is **no** set legal threshold for the THC level detected in the defendant's system – for determining when a person is presumptively impaired by marijuana use.

- **Washington and Colorado legal thresholds** – you are impaired if the blood test shows a level of THC, that is five or more nanograms per milliliter of blood.

Sources: OTS, 2012; Tashima and Hanson, 2011
Drugs play an increasingly prevalent role in fatal crashes, drugged driving accounted for more than 28% of traffic deaths in 2010 up from more than 16% in 1999.

Marijuana proved to be the main drug involved in the increase, contributing to 12% of 2010 crashes compared with 4% in 1999.

The study also noted that the combined use of alcohol and marijuana dramatically increases a driver's risk of death.

Increase in marijuana use occurred in all age groups and in both sexes.

(In press - American Journal of Epidemiology January 2014; Columbia University Mailmen School of Public Health; sample size was compiled utilizing crash statistics from 6 States California, Hawaii, Illinois, New Hampshire, Rhode Island and West Virginia that routinely perform toxicology tests on drivers involved in fatal crashes.)
• The detection time will be 4 to 6 hours after the last joint smoked, regardless of the level of consumption.

• Enables a screening on a very short detection time period. They are designed to tell if someone has recently used a drug, but not whether that person uses drugs more or less regularly.

Will the test be effective if someone ate THC products or used a Vape-Pens?
-WARNING-

BUTANE HASH OIL
“WHY ARE YOU STILL SMOKING POT”

Has BHO’s popularity and interest increased proportionally in Philly as it grew nationally, or was there a disproportionate rise in oil talk around here? When I’ve spoken to people that live in legal states, BHO and marijuana concentrates sound like they have been around forever, so I do think that the rise of oil talk is disproportionate around the country. I’m sure if you ask someone in the middle of Kansas, “Wanna smoke some BHO?” they’d look at you like you’re crazy and could possibly think the concentrate resembles something like heroin.

How does the relatively unknown status (in Philly and non-medical states) of BHO affect its users in the city by your estimation? If police officers find a decent amount of BHO, it could easily be mistaken for heroin or a harder drug. When smoked responsibly or through a vaporizer pen on the streets, it can be easily overlooked. The pens resemble an e-cig, and I’ve been able to take mine into bars, events, shows, even the movies, without a problem. If someone ever asks, the response that it’s an e-cig doesn’t make them think twice.

Most places are latching onto the “BHO explosion” thing to “expose” oil’s “dangers.” Can you speak about that? What else would you expect to happen if you drained an entire can of butane inside your home? There are so many dangers in doing this. Educate yourself and extract outdoors, or leave it to people that take the proper precautions. In legal states, concentrates are manufactured in closed extract systems that don’t allow any gas to escape. Some manufacturers even use non-flammable solvents like CO2 that are less dangerous and make a product with even less impurities.

In what way have you generally seen hash oil treated in the press? Any great attempts at accuracy? Like most forms of press, drugs are always portrayed in a negative way; it’s what sells. From what I’ve seen, the press focuses on the few incidents where BHO production has gone wrong, such as accidental fires, impurities that can cause harm to your body, and explosions due to extracting indoors. If BHO is produced in the right environment, with proper equipment and knowledge, it is just as harmless as smoking MJ.

Stuff a bunch of ground-up weed into a metal tube, run some clean butane gas through, evaporate the solution from the resulting mixture, and what’s left?

“A marijuana concentrate known as hash oil, and if the Internet is any indicator of where we’re going with drugs (it is), then this is what my children will be hiding from me in their sock drawers come parenthood.”
DRUG LAB EXPLOSION – SANGER, CA
Butane Gas/Solvent is used for household fuel, refrigeration, and propelling in aerosol cans. They are highly flammable, colorless and easily liquefied gases.

Butane is a primary solvent for hash oil extraction because it separates herb oils from most other useless plant/bud matter. This type of filtered oil is sometimes nicknamed “Hash or Honey Oil” because the results are like an amber honey.

Warning:
Butane gas is colorless, odorless and heavier than air. The vapors can linger near the floor, often failing to dissipate and are easily ignited.
Waxy marijuana or wax marijuana is the purest form of cannabis. It contains anywhere from 82-99% THC making it several times more potent than a marijuana bud on a cannabis plant which usually contains 5-28% THC. One hit of wax is supposedly equal to 1-2 full cannabis joints and is reported as being more clear and longer lasting than average marijuana. Wax marijuana is also a medical marijuana product. Typical wax marijuana is golden in color and crumbly; though texture may vary based on type.
THC EXTRACTION

Raw herb oil contains:

- Psychoactive cannabinoids in high percentages (THC)
- Plant tissue in low percentages
- Chlorophyll in low percentages
TOOLS

- Cylinder and caps (no PVC)
- Herb (the flower is most potent)
- Glass baking pan - plastic will burn
- Butane canister or other solvents, ether, ethanol, isopropanol
- Cloth filter or gauze
CYLINDER ATTACHED TO BUTANE
LOCAL HASH OIL EXPLOSIONS

Two hurt in PB drug-lab blast

PACIFIC BEACH — Two men in their 20s were injured when a hash oil extraction operation blew up a Pacific Beach apartment Tuesday night. The blast blew out windows at the building along an alley between Grand and Thomas avenues, near Bayview Street, about 8:45 p.m., police and fire officials said.

Witnesses said an apartment was on fire, but any firefighters got there, fire spokesman Maurice Espinoza said.

3 injured in San Diego explosion after suspects light cigarette near hash oil

By Stephen C. Webster

Three men were injured in an explosion in North County Tuesday night.

Two residents of an apartment in the 700 block of Brookside Lane were seriously injured when they inhaled smoke and heat. The third man had a hand injury.

East Village Explosion Caused By Hash Oil Extraction

By Lauren Lee | Friday, Jan. 31, 2014 | Updated 7:57 PM PT

An explosion and fire in an East Village apartment building on Thursday was caused by homemade hash oil, according to the DEA, which is calling it a dangerous trend in San Diego.

The DEA says last year, they busted 35 drug labs like the one at the apartment building, nearly half of them resulting in explosions.

DEA spokesperson Amy Baedineck says making hash oil is dangerous.
“The act of manufacturing butane hash is a criminal offense, but pot supply stores can legally sell the butane canisters, dispensaries can sell the hash and anyone with a doctor's recommendation can buy marijuana and "vape" it.

In other words, there is a legal, lucrative market for a product that is illegal to make.”
MPI - BHO INFO CARD

Butane Hash Oil

- The process for making hash oil uses butane gas to extract higher levels of tetrahydrocannabinol (THC), the main psychoactive substance found in the cannabis plant. Butane gas is colorless odorless and highly flammable.
- Butane gas is used to separate marijuana oils from the plant matter. This type of filtered oil is sometimes called “Hash or Honey Oil” because the results look similar in color and consistency to honey.
- A number of explosions have occurred in San Diego County from attempting to make Butane Hash Oil (BHO). This has resulted in severe burns and significant property damage.

Wax and Hash oils are often smoked using Vape - Pens or E cigarette type devices

Highly potent forms of marijuana such as Wax and Honey Oil or Hash Oil are made using this process. THC levels can vary from 60% to 90% using this extraction method.

Signs of Butane Hash Oil production:

- Strong sweet smell of marijuana
- Frequent deliveries of large packages which may be labeled hazardous
- Empty butane canisters in the trash

If you suspect Butane Hash Oil production in your neighborhood call your local law enforcement agency.

For more information visit mfpcounty.net

Funded by the County of San Diego, Health and Human Services Agency
MODERN MARIJUANA AND EMERGING SOCIAL TRENDS
KEY POINTS

- THC Levels and Modern Marijuana
- Emerging Trends
- Youth Culture
- Social Media and Communication
FAMILIAR MARIJUANA

Class B Cannabis
Pot - Dope - Grass - Puff - Ganja - Weed - Herb - Spliff
Marijuana - Hashish - Hemp - Draw - Smoke - Joint

Resin Blocks
Resin
Leaf
Herbal compressed blocks
Oil
Resin
Herbal loose
Herbal packaged
CONCENTRATES SUCH AS \textit{WAX, BUTANE HASH OIL, EDIBLES} MAY CONTAIN HIGHER THC LEVELS.
THC INCREASES

- The average potency for marijuana has increased six-fold since 1978
  - Higher levels of THC may be related to higher rates of addictions (NIDA, 2009)

- THC levels vary depending on the variety of the cannabis plant, the way in which the plant is grown, the part of the plant that is used, and the way the plant is prepared for use and stored.

- Technology, crossbreeding and genetic modification can produce strains of the cannabis plant with particularly high levels of THC.
Hash oils are concentrated and extremely potent. They are made through a volatile chemical process utilizing butane as a solvent.

Wax (extracted cannabinoid product) is a form of hash oil. The typical wax product is often golden in color and crumbly.
WAX MARIJUANA USE AND VAPORIZER
E-CIGS, VAPE PENS, EDIBLES, BRACELETS

- Small and easy to hide
- Easy to purchase online
- Don’t really have a smell
- Brownies, cookies, jello, etc. looks just like a typical snack
HOOKAHS

- Social status symbol
- Flavored tobacco
- “Sprinkles” – mixing marijuana and tobacco
- Alcohol bases – vodka instead of water
INTERNET ACCESS
WEBSITES AND DELIVERIES

- Websites exist with:
  - Anonymous purchasing – bitcoins
  - Anonymous deliveries
- Forums and blogs
- P.O. Boxes
INTERNET ACCESS AND BUSINESS PROFITS

“Making money off of addiction”
YOUTH CULTURE

Social Norms
Celebrity Influence
MUSIC FESTIVALS

- Warped Tour, Coachella, Outside Lands, Burning Man, Lollapalooza, Bonnaroo
  - Music and art festivals
  - Multiday events with multiple stages in the middle of nowhere
  - Security is usually around the perimeter and stage
  - People have their own tents and trailers
Drug Access at Events
SOCIAL MEDIA
INSTAGRAM, SNAPCHAT, VINES

- Make smoking look cool
- It’s easier to tell someone what you’re doing and where
- People like to show off

Who’s watching your activity?
Event pages
- Someone is hosting a tea party
  - Bring tea and baked goods
Message people
Tag people and places
Fake profiles
Privatize profiles
BE AWARE: anything posted online is permanent
SMARTPHONES

- Combines every piece of social media into one place
  - Twitter
  - Facebook
  - Instagram, Snapchat
  - Blogs and meme apps
- More of a computer with a phone feature
Meme Examples

GETS FIRED FOR SHOWING UP TO WORK HIGH

COMES BACK TO WORK THE NEXT DAY

TRIES WEED FOR THE FIRST TIME

10 YEARS IN PRISON
Texting – How many texts do you think you send in a day?
Average teenage girl texts
- 3,952 per month (about 130 per day)

Average teenage boy text
- 2,815 per month (about 94 per day)

In addition to social media such as Facebook messaging which is done primarily off laptops and desktops

Nielsen, 2010
FOR PARENTS

Signs of teen pot use

- Friends that smoke pot
- Truancy
- Frequent packages delivered
- Lethargy
- Uninterested in activities
- Failing grades

Don’t be afraid to talk about drug testing with your kids!
Who deals-

- Dealers don’t typically talk publicly about making deals, but people that purchase marijuana talk openly about using.
- There are signs/symbols from shoes and hats to key chains and bracelets.
- Using nicknames and codenames to protect anonymity.

Where do the deals happen-

- Parking lots
- Classrooms and bathrooms
- Simply going to someone’s house
- Online
CLOTHING MAY MEAN SOMETHING!
FOR TEENS

- Do not eat items that were given to you by strangers
- Posting activities on social media sites that future employers can see may hurt your job prospects
- Do not become a victim of peer pressure
- Do not lose sight of your goals and ambitions
- Do not operate or get in a vehicle if someone was smoking pot
- If you need help for addiction tell an adult
- If you suspect or see any butane, BHO paraphernalia, leave the location immediately and call law enforcement
Reinforce existing policies through trainings, events and forums.

Work with “at risk” populations such as kids in our alternative and continuation schools. **Start prevention efforts at a younger age.**

Utilize media and community events to inform the public.

Develop materials focusing on youth marijuana use, future career choices, increases in THC levels, academic, health and driving impacts and emerging trends.

Recruit youth from around the county to become advocates.
IF YOU NEED TO TALK TO SOMEONE ABOUT YOUR MARIJUANA USE, CALL THE ACCESS & CRISIS LINE

(888) 724-7240

We are part of a larger prevention network:

6 Regions & 3 Initiatives
- Youth Groups
- Media
- Community Advocacy
- Data Collection
THANK YOU

Joe Eberstein, Program Manager
Rusty Bower, Data Analyst

Center for Community Research, Inc.
San Diego County Marijuana Prevention Initiative
Coming soon: www.mpisdcounty.net

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