

# Workforce Implications of Non-Medicinal & Medicinal Marijuana Use and Interventions



**Workforce Implications of Non-Medicinal & Medicinal Marijuana Use and Interventions**

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Information & Support

**VECTOR MEDICAL**  
Occupational Medicine Experts

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**Declarations**

I have no conflicts of interest to declare, however, BFFF covered my US domestic expenses to attend this meeting

Director of Cannabis Information and Support, a private information, intervention and training resource centre.  
Honorary Professor at UNSW Australia and many of the studies described were conducted when I was Director of the National Cannabis Prevention and Information Centre at UNSW, funded by the Australian Government

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**Presentation aims**

- #1 You're able to name the risks associated with cannabis use to the individual and to workplace safety
- #2 You're able to identify the evidence for the effectiveness of cannabis-related brief interventions relevant to an EAP setting
- #3 You can identify the key elements of screening and assessment of cannabis-related problems and contents of the resource *Marijuana Brief Intervention: an SBIRT approach* resource

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# Workforce Implications of Non-Medicinal & Medicinal Marijuana Use and Interventions

## ACOEM Guidelines on marijuana in the workplace for occupational health professionals and employers 2015

- Fluid policy environment
- Risk of marijuana associated adverse events and loss of productivity
- 1970 Occupational Health and Safety Act requirement to maintain protection of workers
- The Americans with Disabilities Act (ADA) does not require employers to permit cannabis use even if a registered patient
- The majority of private employers are not required to drug test. Safety sensitive employees such as pilots, drivers, armed personnel etc come within Department of Transport guidelines
- Federal employees conducting drug testing must follow Substance Abuse and Mental Health Services Administration protocols
- 1988 Drug Free Workplace Act
- Includes guidelines on impairment assessment



[Link Out Line: The Link Law Review Online Supplement](#)  
Volume 30(1) (October 2015)

[30\(1\) Marijuana and the Workplace: How High are the Stakes for Employers?](#)  
Julie D. Cole

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## What is marijuana/cannabis?



- Dried flowering heads of the Cannabis Sativa or Indica plant cross breeds
- Known as: marijuana (in US legislation), cannabis, pot, weed, ganja, dank, 420, grass, dope, bhang, hashish
- Potency of principal psychoactive cannabinoid delta 9 tetrahydrocannabinol (THC) is generally higher than ever before (15-25%) and greatly differs by preparation technique with levels of cannabidiol (CBD) almost bred out of most strains




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## How is marijuana consumed?



- Smoked
  - cigarette (joint/spliff with or without tobacco)
  - pipe, a water pipe (bong/cone), or a hookah
  - hollowed-out cigar (blunt)
- Vaporized
  - heated plant material
  - heated oil or wax (dab)
- Consumed orally
  - baked goods or other food products (brownies, cookies, etc.)
  - beverages: tea, milk based products, soda, coffee etc
  - capsules (typically synthetic for pharmaceuticals e.g dronabinol)




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## How many Americans use marijuana?

Marijuana is the most commonly used illicit drug (22.2 million people have used it in the past month) according to the 2015 National Survey on Drug Use and Health (NSDUH)

Approx. 8.1 million had used on 20+ days/past month with 4.2 million meeting criteria for cannabis use disorder (NSDUH)




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## Demographic differences in patterns of marijuana use

Young adults (ages 18 – 29) are at highest risk for cannabis use & cannabis use disorder (CUD), with use increasing from 10.5% to 21.2% and CUD increasing from 4.4% to 7.5% over the past decade.

Black and Hispanic individuals have an increased prevalence of cannabis use & CUD, with use increasing from 4.7% to 12.7% over the past decade among blacks and from 3.3% to 8.4% among Hispanics.




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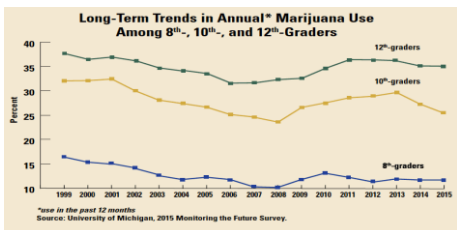
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In the past decade levels of cannabis use and CUD have doubled (around 30% of users were addicted) with daily use more common




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## Cannabinoid receptor system

**Red** = abundant CB1 receptor expression  
**Black** = moderately abundant CB1 receptor expression

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## Effects

Spectrum of effects that prevent classification as either stimulant, hallucinogenic or sedative

- Red eyes, dry mouth
- Increased heart rate and blood pressure (although ↓ at 1<sup>st</sup>)
- euphoria and relaxation
- altered time perception
- impaired concentration, learning & memory
- mood changes – anxiety, panic reactions (naïve) and paranoia
- hallucinations (at high doses)

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## What is cannabis use disorder?

A pattern of cannabis use leading to clinically significant impairment or distress that typically includes (DSM 5):

- difficulty controlling or cutting down use
- craving
- using more than intended
- spending a lot of time on cannabis related activities
- giving up or reducing other activities in favour of cannabis
- continuing to use despite physical/psychological problems
- continuing to use despite social or relationship problems
- using in high risk situations
- problems at work, school, and home related to use
- tolerance
- withdrawal syndrome upon cessation

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## Cannabis use disorder in US

- The prevalences of 12-month and lifetime cannabis use disorder were 2.5% and 6.3%
- The odds of 12-month and lifetime cannabis use disorder were higher for men, Native Americans, unmarried individuals, those with low incomes, and young adults
- Cannabis use disorder was associated with other substance use disorders, affective disorders, anxiety, and personality disorders
- Only 13.2% with lifetime cannabis use disorder participated in 12-step programs or professional treatment



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## Cannabis use disorder in US

Women experienced shorter duration from onset of cannabis use to onset of CUD than men (mean = 5.8 years, men; mean = 4.7 years, women)

In both men and women, prevalences of CUD were greater among young adults, Blacks, and those with lower income and greater among Native American women relative to White women

CUD was highly comorbid with other substance use disorders, PTSD, ASPD and borderline and schizotypal PDs for men and women. Quality of life for individuals with CUD was low regardless of gender (NESARC 2012-13)

Kerridge et al., (in press DAD)



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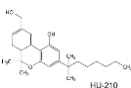
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## What is “synthetic marijuana”?



- Synthetic cannabinoid receptor agonists (SCRA)
- Herbal plant material sprayed with highly concentrated synthetic chemicals that mimic THC (the active chemical in marijuana)
- Much more powerful than marijuana – many deaths reported
- Because composition of products varies, users may experience unexpected and dramatically different effects including:
  - extreme anxiety
  - paranoia
  - hallucinations
  - seizures



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## Who use SCRA?

In addition to the usual reasons for trying any drug class...

- marijuana users
- young people esp when accessible from retail stores
- those wishing to avoid testing positive to THC e.g members of military, security and workplaces such as mines
- A hugely dynamic market with ever more dangerous formulae being sold
- Use not eradicated in legal mj states

### SYNTHETIC CANNABINOIDS

THERE WERE **117** SYNTHETIC CANNABINOID IDENTIFICATIONS IN THE FIRST QUARTER OF FY 2017. THIS WAS ACCOUNTED FOR APPROXIMATELY **43%** OF THE IDENTIFICATIONS. THE NEW SYNTHETIC CANNABINOIDS WERE IDENTIFIED THIS QUARTER:

WYOMING	1	There was a significant increase in the number of synthetic cannabinoid identifications, increasing from <b>31</b> identifications during the fourth quarter of FY 2016 to <b>117</b> identifications in the first quarter of FY 2017 (a <b>377%</b> increase)
UTAH	1	
IDAHO	1	
ARIZONA	1	
NEW MEXICO	1	
NEVADA	1	
NEW YORK	1	
INDIANA	1	
MISSISSIPPI	1	
MISSOURI	1	
TOTAL	117	

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## A new program package to respond

- Facilitator guide
- DVD
- CD-ROM
  - Participant workbook
  - Participant journal
  - Screening tool
  - Referral to treatment form
  - Additional program handouts

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## Goals of the Program

- As use and related problems increase there is an growing need for a variety of workforces to engage in screening for problematic use and effective intervention
- Research shows SBIRT programs identify individuals with CUD and intervene to reduce substance use, prevent health and other related consequences, and save healthcare costs

- Time-efficient means (for both client and facilitator) of teaching marijuana users how to
  - recognize their own marijuana-related problems
  - learn the necessary skills to manage and change marijuana-related behaviors
  - reduce marijuana use and quit using marijuana altogether

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For whom is the program designed?

- Typically – adults with mild to moderate cannabis use disorder
- In practice – youth and adults; non-treatment seeking; and those with a severe cannabis use disorder
- Has been evaluated as 1 session, 4 session (via telephone) and 6 session individualised intervention



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Which settings?

- Range of primary health care settings
- Mental health care in the community
- School/college counselling programs
- Juvenile or other correctional settings in the community or peri-release
- Employee Assistance Programs
- While on waiting lists for specialist services



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What are the key clinical elements of SBIRT?

Motivational interviewing

Cognitive-behavioral therapy

Stages of change



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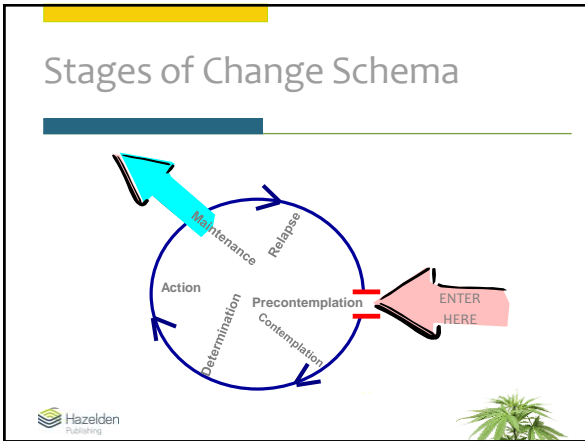
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## Motivational Enhancement Therapy

- Motivational Enhancement Therapy (MET) is a counseling approach that helps individuals resolve their ambivalence about engaging in treatment and stopping their drug use. This approach aims to evoke rapid and internally motivated change and embodies the principles of Motivational Interviewing (MI):
  - Engaging - used to involve the client in talking about issues, concerns and hopes, and to establish a trusting relationship with a counselor.
  - Focusing - used to narrow the conversation to habits or patterns that clients want to change.
  - Evoking - used to elicit client motivation for change by increasing clients' sense of the importance of change, their confidence about change, and their readiness to change.
  - Planning - used to develop the practical steps clients want to use to implement the changes they desire.

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## Cognitive-Behavioral Therapy

- Cognitive Behavioral Therapy is a technique that acknowledges that there may be behaviors that emerge based on prior conditioning from the environment and other external and/or internal stimuli. CBT is "problem-focused" (undertaken for specific problems) and "action-oriented" (therapist tries to assist the client in selecting specific strategies to help address those problems). Techniques include:
  - Active listening
  - Focussed assessment
  - Psycho education
  - Goal setting
  - Monitoring (homework)

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# Workforce Implications of Non-Medicinal & Medicinal Marijuana Use and Interventions

## Six-session Program

- Session 1 – Preparing for Change
- Session 2 – Strategies for Change
- Session 3 – Managing Withdrawal
- Session 4 – Problem Solving
- Session 5 – Review
- Session 6 – Keeping on Track


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## Research

- Randomized controlled trial (n=229) with follow-up (237 days median) (2001)**
  - Better treatment outcomes than delayed-treatment control group for both 1-session and 6-session formats (higher abstinence, less concerned about control of use, significantly fewer cannabis-related problems)
  - 6-session format reported more significantly reduced levels of cannabis consumption than DTC group
- Four-session telephone version also tested in randomized controlled trial (2012)**
  - 39% of participants reported clinically significant improvement in measures of cannabis-related problems and dependence severity at a 12-week follow-up versus 14% in the control group
- Screening tool, questionnaires, withdrawal scale have demonstrated validity and reliability**


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## Contacts

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 <https://cannabissupport.com.au>

 <https://www.youtube.com/user/cannabissupport>

 @CannaBoss

 <https://www.gofundme.com/cannabis-information-and-support> Donate to the website & intervention App Joint Effort hosting via GoFundMe








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