

# Cannabis and Gambling: A Growing Issue

---

Timothy Fong MD  
UCLA Cannabis Research Initiative  
UCLA Gambling Studies Program  
NYCPG  
2<sup>nd</sup> Annual Virtual Conference  
October 2021



# Disclosure of Relevant Financial Relationships

Name	Commercial Interests	Relevant Financial Relationships: What Was Received	Relevant Financial Relationships: For What Role	No Relevant Financial Relationships with Any Commercial Interests
Indivior		Honorarium	Speaker's Bureau	
Creative Care		Research Support	Research Support	
Alkermes		Stipend	Consultant	
Connections In Recovery		Grant	Research	

# Goals

- Gain knowledge of the relationship between cannabis and gambling.
- Recognize how the legalization of cannabis is likely to impact gambling and gambling disorder.
- Use best treatment practices to address cannabis use disorders and gambling disorder.

# Recent Case at UCLA

- 52 year old male presents for gambling disorder and depression treatment
- Classic presentation
  - Debt
  - Stress / emotional pain
  - Impaired work / home / social functioning
  - Poor Self-Care

# Recent Case at UCLA

- Preferred form of gambling is poker, table games, online and live
- Tobacco, no other substances reported at intake
- Standard treatment doesn't appear to work
  - GA, Therapy, Medications

# Recent Case at UCLA

- After 6 sessions, reveals that he uses cannabis "regularly" but doesn't see it as a problem because "it's just weed"
- Additional elements
  - Meets criteria for cannabis use disorder
  - Amotivated, emotionally absent
  - Thinks it helps calm him prior to gambling but no evidence that it is "performance enhancing"

# Issues Raised

- How did gambling disorder impact cannabis use?
- How did cannabis use impact gambling disorder?
- How should cannabis be addressed in the office and how much time should be spent on this?
- How many others are out there?

# A Few Thoughts on the Current Cannabis Landscape



# 2021 Trends

- National acceptance and demand
  - Marketing as Health and Wellness
- Perception of harm among 12<sup>th</sup> graders decreased leading to increased use
- Emergence of “Big Weed”
  - Environmental, economic, political power
- Cannabis Medicine as a specialty?

# 1996

- In 1996, voters approved Proposition 215, which legalized the use of medicinal cannabis in California.
- Since the proposition was passed most regulation was done by local governments.

# 2016

- In November of 2016, voters approved Proposition 64, the Adult Use of Marijuana Act (AUMA).
- Under Proposition 64, adults 21 years of age or older can legally grow, possess, and use cannabis for non-medicinal purposes, with certain restrictions.

# 2018-2020

- January 1, 2018:
  - AUMA makes it legal to sell and distribute cannabis through a regulated business.
  - First recreational sales
- January 2020
  - Two years into AUMA

# January 2018-2021

- Statewide revenue exploding
  - \$1.3 billion 2<sup>nd</sup> quarter 2021
- Unregulated to regulated market
- Social justice impact happening
  - Criminal charges, business opportunities
- Public perception becoming ingrained
  - Museum of Weed; billboards!
- Is this what we expected or hoped for?

# Nevada Cannabis Sales

TAXABLE SALES	FISCAL YEAR 21
<b>Taxable Sales Reported by Adult-Use Retail Stores and Medical Dispensaries</b>	<b>\$1,003,467,665</b>
Clark County	\$791,100,017
Washoe County	\$135,326,790
All Other Counties	\$77,040,859

In California, how much  
cannabis can an adult  
purchase per day?

- A. One gram
- B. Half an Ounce
- C. An Ounce
- D. A pound
- E. Unlimited

**Gram**

~1-2 joints worth



**Eighth (1/8)**

~3.5 grams



**Quarter (1/4)**

~7 grams



MedicalJane

**Half (1/2)**

~14 grams



**1 Ounce**

~28 grams





# Trends in Use

National Survey on Drug Use and Health: Trends in Prevalence of Marijuana/ Hashish for Ages 12 or Older, Ages 12 to 17, Ages 18 to 25, and Ages 26 or Older; 2018 (in percent)\*

Drug	Time Period	Ages 12 or Older	Ages 12 to 17	Ages 18 to 25	Ages 26 or Older
Marijuana/ Hashish	Lifetime	45.30	15.40	51.50	47.80
	Past Year	15.90	12.50	34.80	13.30
	Past Month	10.10	6.70	22.10	8.60

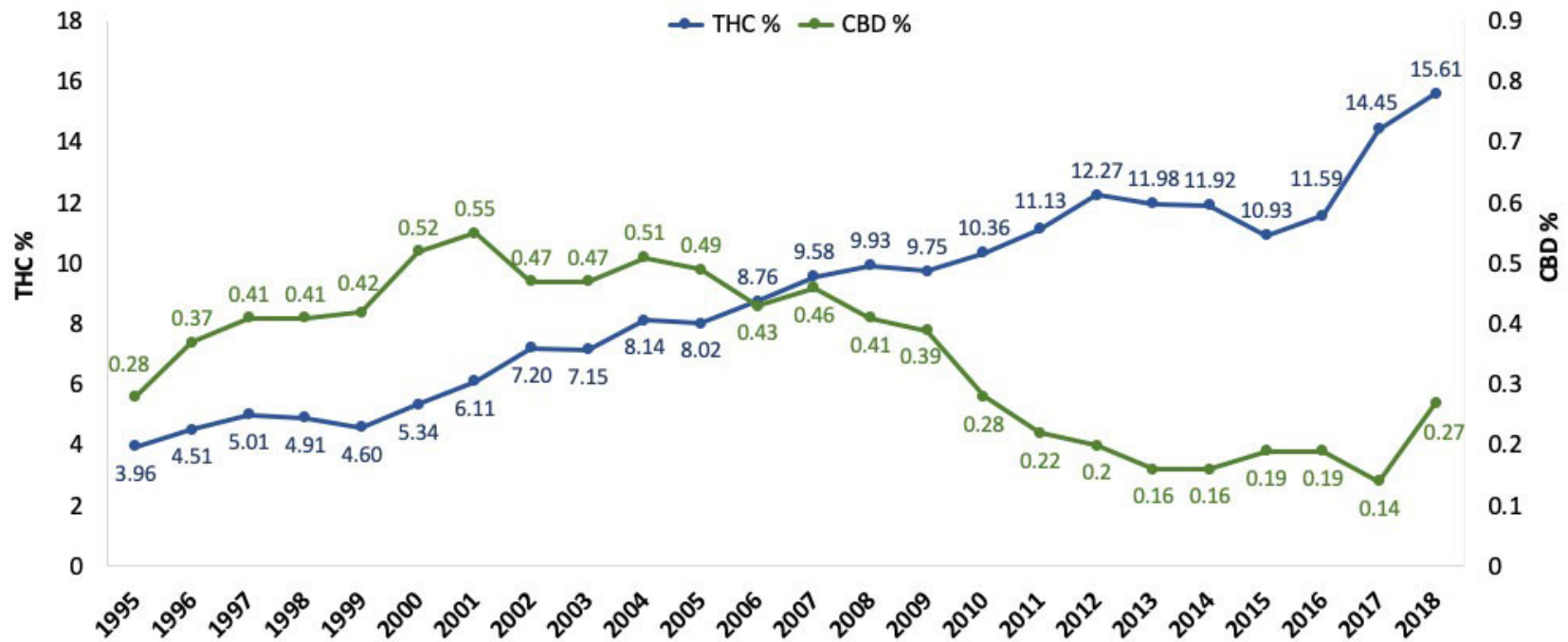
^ indicate low precision; no estimate reported.

Data in brackets indicate statistically significant change from the previous year. [➔ Previous NSDUH Data](#)

January 23, 2020

# Concentration Matters!

**Percentage of THC and CBD in Cannabis Samples Seized by the DEA from 1995-2018**



# SYNTHETIC CANNABINOIDS (K2/SPICE)

## UNPREDICTABLE DANGER

K2 /SPICE IS **NOT** MARIJUANA

It's often called *synthetic marijuana* or *fake weed* because some of its chemicals are like those in marijuana. The effects can be unpredictable and in some cases, severe or even life-threatening.



Shredded, dried  
plant material

+



Man-made  
chemicals

=



A "natural" drug?  
**Not even close.**



For more information, visit:  
[drugabuse.gov/publications/drugfacts/synthetic-cannabinoids](https://drugabuse.gov/publications/drugfacts/synthetic-cannabinoids)

# What about Cannabidiol (CBD)?

- CBD is NOT THC
- HEMP: Cannabis <0.1% THC = therefore, legal
- CBD concentration widely variable in different forms of cannabis strains
- So federal agencies have been slow to regulate the booming industry — leading to a deluge of tinctures, smoothies and lotions that trusted tests have shown contain no CBD at all! (PETS, MAKEUPS, GUMMIES, OILS, GROUPON!)

# Impact on Physical Health

## Reminders

- Immediately after ingestion
  - Increased heart rate
    - Increased risk of MI?
  - Vasodilation
  - Orthostatic Hypotension
  - Immune Suppression
- Cancer risk – unclear
- Cannabinoid Hyperemesis Syndrome

# Cannabis and Mental Health

# ONE TAKEAWAY

**As of October 2021, cannabis use in persons seeking mental health treatment is more likely to be harmful than therapeutic.**

# Cannabis and Psychiatric Effects

- Intoxication
  - Range from mild to severe
- Worsen underlying conditions
- Develop new conditions
  - Substance-induced disorders
  - Long-term consequences (cognition)
- Can it improve underlying conditions?



# Cannabis Withdrawal

- Three (or more) of the following signs and symptoms develop within approximately 1 week:
  - Irritability, anger, or aggression.
  - Nervousness or anxiety.
  - Sleep difficulty (e.g., insomnia, disturbing dreams).
  - Decreased appetite or weight loss.
  - Restlessness.
  - Depressed mood.
- At least one of the following physical symptoms causing significant discomfort: abdominal pain, shakiness/tremors, sweating, fever, chills, or headache.

# Cannabis Use Disorder (CUD)

DRUG	LIFETIME RISK OF DEPENDENCE
Nicotine	32%
Heroin	23%
Cocaine	17%
Alcohol	15%
Cannabis	9%

# Accepted Therapeutic Use: Cannabinoids

- Dronabinol (Marinol) (synthetic THC)
- Nabilone (Cesamet) (synthetic THC)
  - Chemotherapy-induced nausea and vomiting
  - Stimulate appetite with wasting syndrome due to AIDS
- Cannibidiol (Epidiolex) (CBD)
  - Intractable pediatric seizures (Dravet and Lennox-Gastaut)
  - Plant Derived
  - Oral liquid
  - Not controlled substance

---

## Nabixmols (Sativex) (THC and CBD)

- Spray
- Muscle Spasticity and neuropathic pain (MS);
- non-USA (UK, Canada)

Black, Nicola, et al.  
"Cannabinoids for the  
treatment of mental disorders  
and symptoms of mental  
disorders: a systematic review  
and meta-analysis." *The  
Lancet Psychiatry* 6.12 (2019):  
995-1010.

# Cannabis and Mental Health: Treatment

There is **scarce** evidence to suggest that cannabinoids **improve** depressive disorders and symptoms, anxiety disorders, attention-deficit hyperactivity disorder, Tourette syndrome, post-traumatic stress disorder, or psychosis.

How do cannabis and  
gambling relate to one  
another?



# Slots Weed Marijuana Casino - cannabis bud machine

Firm Extreme: Free Match Games & Bubble Pop Blast Casino

★★★★★ 990

**M** Mature 17+

Contains Ads · Offers in-app purchases

 Add to Wishlist

Install





# New Cannabis Consumption Lounges Expected to Open in Nevada in 2022

The Las Vegas Paiute Tribe operates the only cannabis consumption lounge in the state, but next year, dispensaries and stand-alone lounges can open

by Susan Stapleton | Oct 4, 2021, 11:00am PDT

f   SHARE



The Yoga Tasting Room at NuWu Cannabis Marketplace. | NuWu Cannabis Marketplace





# Cannabis and Gambling Venues

- From the gambling industry view
  - Managing gambling intoxication
    - Policies, procedures, training required
  - Navigating local, state and federal laws
  - Promote or prohibit cannabis usage?
  - Managing employees (urine testing)
  - How to relate to cannabis industry
    - Convention business

# Cannabis Money

- As state laws and federal laws don't match up on marijuana, gambling industry are unable to accept money from anyone involved in the medical or recreational marijuana industry, whether it's legal in the state or not.

# Future of Gambling

- Integration of technology and the video game industry
- Marketing to the digital consumer
  - Twitch, YouTube, Social Media Channels
- Focus on the phone
  - Social casinos and mobile gaming
  - A pathway to the land-based casino
- Social use venues

Does Cannabis Increase or  
Decrease Gambling  
Behavior?

# What We Think We Know Now

- Cannabis consistently should:
  - Increase impulsivity
  - Increase risk-taking
  - Increase ingestion of other available substances
  - Change perception of time
  - Alter moods
  - Impair decision-making

# How does cannabis use impact gambling?

- Attention / Concentration
- Risk-taking behaviors
- Diminish emotional responses?
- Impulsivity
- Urges and cravings?

Does gambling increase or  
decrease cannabis use?

# Does gambling lead to cannabis use?

- Most certainly if they are sold together or available together
- Most certainly if they are marketed together to enhance each other's experience
- Impact of professional gamblers, gambling role models



# Other questions to consider

- Impact of cannabis on gambling disorder?
  - Essentially unknown
- Could cannabis treat gambling disorder?
  - What is the basis of this?
  - Target urges / cravings / reward circuitry?

[problemgambling.ca.gov](http://problemgambling.ca.gov)



Since the beginning of CalGETS in 2009, over **12,500** individuals have received no-cost treatment to address the harmful impact of problem gambling.

# Cannabis Use Among Gambling Disorder

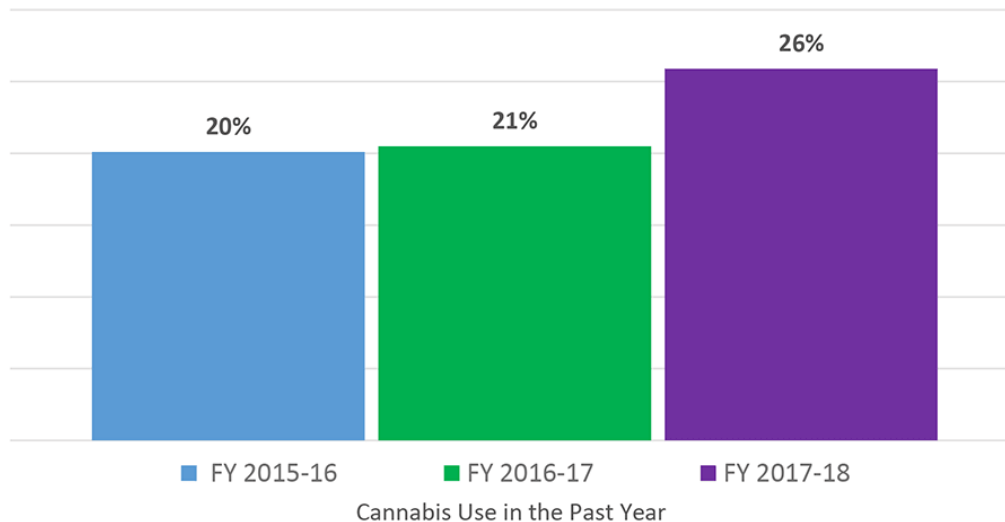
- According to the National Survey on Drug Use and Health (NSDUH), 19% of the population of California self-reported using cannabis within the past year. Among CalGETS outpatient clients, 21% used cannabis.

# CalGETS Fast Facts

## Cannabis Use Is Increasing Among Problem Gamblers Entering Treatment

July 2020

CalGETS Problem Gamblers Entering Treatment  
between 2015 and 2018  
Report Increasing Cannabis Use



Sources – *Outpatient Gamblers*: CalGETS Fiscal Years 2015-18 dataset, prepared for the California Department of Public Health, Office of Problem Gambling by the University of California Los Angeles Gambling Studies Program. CalGETS treatment participants were asked at intake: “In the past 12 months, have you used any of the following substances? Marijuana” Dataset includes data from July 2015 through June 2018. *US Marijuana Use*: Gallup, What percentage of Americans smoke marijuana? [online], 2019 [accessed August 5, 2020]. URL: <https://news.gallup.com/poll/284135/percentage-americans-smoke-marijuana.aspx>

Between July 1, 2015 and June 30, 2018, 2,596 problem gamblers entered CalGETS outpatient treatment. They were asked if they had used cannabis in the past year.

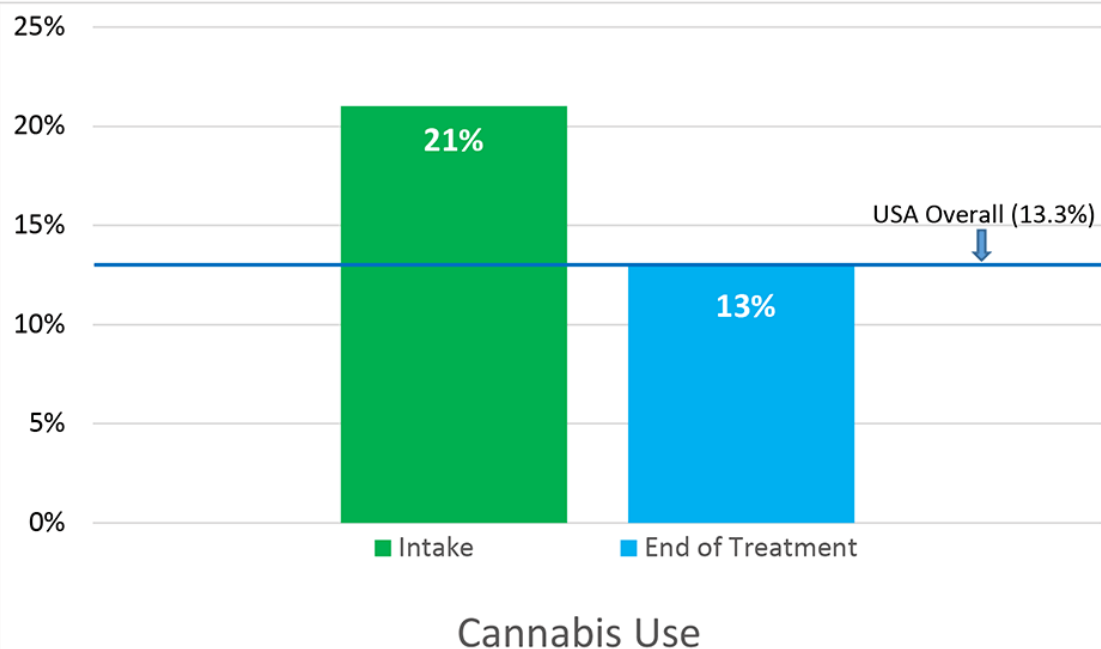
In Fiscal Year 2015-16, 20% of problem gamblers reported that they used cannabis in the past year. Cannabis use increased to 21% in FY 2016-17, and 26% in FY 2017-18. These percentages are higher than the 12% of U.S. and 16% of Western-state adults who report using cannabis.

Medicinal use of cannabis was legal throughout the study timeline. Recreational use of cannabis was legalized in California starting January 1, 2018.

In California, problem gamblers can receive no-cost treatment through CalGETS. ☎ If you or someone you know has a gambling problem, call 1-800-GAMBLER.

# CalGETS Fast Facts

## Problem Gamblers' Cannabis Use Decreases after CalGETS Treatment



Source – *Outpatient Gamblers*: CalGETS Fiscal Year 2017-18 dataset, prepared for the California Department of Public Health, Office of Problem Gambling by the University of California Los Angeles Gambling Studies Program. CalGETS treatment participants were asked: “In the past 12 months, have you used any of the following substances? Marijuana.” At the end of treatment they were asked, “Since intake, have you used any of the following substances? Marijuana.” The decrease in cannabis use from Intake to End of Treatment was significant ( $p < .0001$ ,  $N=352$ ) using the McNemar test.

*USA Marijuana use*: Compton, W. M., Han, B., Jones, C. M., Blanco, C., & Hughes, A. (2016). Marijuana use and use disorders in adults in the USA, 2002–14: analysis of annual cross-sectional surveys. *The Lancet Psychiatry*, 3(10), 954-964.

November/December 2019

In California, problem gamblers can receive no-cost treatment through CalGETS. Between July 1, 2017 and June 30, 2018, 876 problem gamblers entered outpatient treatment; 352 of whom also provided end-of-treatment data. We analyzed reports of cannabis use for those 352 clients.

Problem gamblers' use of cannabis decreased from 21% at CalGETS treatment entry to 13% at the end of treatment. This decrease in cannabis use is statistically significant.

Medicinal use of cannabis was legal during the study timeline, and recreational use of cannabis was legalized in California starting January 1, 2018.

# Affected Individuals and Cannabis

- . Cannabis use in the past 30 days was reported by 13% of Outpatient AIs,

# Clinical Relevance

- Most providers have not received formal training about cannabis
- Recognizing cannabis use vs risky/harmful use is not as evident as with other substances
- Is cannabis being used as a drug or a medication?
- Cannabis and gambling
  - Improve, exacerbate or no effect?



# Clinical Roadmap

- Raise knowledge about cannabis trends (how, where, what)
- Screen for cannabis use at intake, annually or when client relapses or reports increased emotional distress
  - Cannabis Use Disorder Identification Test
- Assess for cannabis use disorder
- Characterize how cannabis impacts current conditions

# During the Course of Treatment

- Document cannabis use and impact on course of gambling behavior
  - Help or hurt or unknown?
  - Report these trends to OCPG, NCPG or peers / colleagues
- Monitor cannabis and gambling industry partnerships

# The UCLA Cannabis Research Initiative

- To investigate the therapeutic potential and health risk of cannabis through the interdisciplinary study of all facets of cannabis' effect on society, including legal, economic, and social impact.
- UCLA-CRI will provide timely education, research, and service to lead public policy and public health decisions regarding cannabis.

# cannabis.semel.ucla.edu

**UCLA** Cannabis Research Initiative

[Home](#) [About Us](#) [UCLA Research](#) [Media](#) [Education](#) [Events & Videos](#) [Giving](#) [🔍](#)

## UCLA Cannabis Research Initiative



# Twitter Handle: @UCLACannabis

The image is a screenshot of the Twitter profile for the UCLA Cannabis Research Initiative (@UCLACannabis). The left sidebar shows navigation options: Home, Explore, Notifications, Messages, Bookmarks, Lists, Profile, and More. The main content area displays the profile header with a blue verified badge, a bio stating the initiative is dedicated to multidisciplinary research and education, and a pinned tweet. The pinned tweet is from October 2nd, announcing a 4-credit course titled "178. Cannabis and Cannabinoids: From Pharmacology to Public Policy" starting on Monday. The tweet includes details about the course units (4.0), lecture duration (three hours), and target audience (undergraduate students with biology, human biology, neuroscience, physiology, or psychology background, and graduate students in neuroscience).

**UCLA Cannabis Research Initiative**  
12 Tweets

**UCLA Cannabis Research Initiative**  
@UCLACannabis

UCLA Cannabis Research Initiative, dedicated to multidisciplinary research and education of cannabis and cannabinoids

UCLA [cannabis.semel.ucla.edu](https://cannabis.semel.ucla.edu) Joined September 2020

24 Following 56 Followers

Followed by Margaret Haney

**178. Cannabis and Cannabinoids: From Pharmacology to Public Policy**

Units: 4.0

Lecture, three hours. Designed for undergraduate students with biology, human biology and society, neuroscience, physiology, or psychology background and graduate students in neuroscience-

# Acknowledgements

## **UCLA Cannabis Research Initiative**

Ziva Cooper

Timothy Fong

Chris Evans

Mary Olson

Vincent Acebo

Nesta Marley

Stephanie Lake

Conor Murray

# UCLA Gambling Studies Program (UGSP)

- Founded 2005
- UGSP examines the causes, course and impact of gambling disorder while developing evidence-based treatment strategies
- Post-doctoral position available!
  - Two-year advanced training and research
  - **APPLY NOW!**

# uclagamblingprogram.org

## UCLA GAMBLING STUDIES PROGRAM

[Home](#) [About Us](#) [Research](#) [Treatment](#) [Education](#) [News & Events](#) [CalGETS](#) [Fast Facts](#)

ENHANCED BY Google



### National Conference on Gambling Addiction & Responsible Gambling 2021 *Embracing Change Together*

National Conference 2021 - National Council on Problem Gambling

The 2021 National Conference on Gambling Addiction and Responsible Gambling will recognize the pervasive effects of the pandemic.

[Contact Us](#)

[Map and Directions](#)

[Learn More](#)

[YouTube](#)

### Freedom from Problem Gambling

The UCLA Gambling Studies Program (UGSP) is a non-profit organization within the Department of Psychiatry and Biobehavioral Sciences at the University of California, Los Angeles. Our mission is to reduce the individual, familial, and societal harm caused by problem gambling. Since 2005, we have been engaged in conducting research, providing cost-effective prevention and treatment services, and offering education and training opportunities to healthcare providers and the community at large.



# UGSP Partners (Present Day)

- California Department of Public Health
- Office of Problem Gambling
- California Council on Problem Gambling
- Morneau Shepell
- Beit T'Shuvah
- Health Right 360
- CalGETS Providers
- Union on Pan Asian Communities (UPAC)
- Friday Night Live (Betting on Our Future)
- California Dept. of Justice
- California Gaming Control Commission
- Gambler's Anonymous
- Media Solutions
- OPG Advisory Board
- UCLA Gambling Studies Program

# UCLA Gambling Studies Program

- Timothy Fong
- Richard Rosenthal
- Mary Olson
- Mike Campos
- Rory Reid
- Elizabeth Hall
- Didi Huezso
- Lauren Chan
- Abraham Caballero
- Fiona Donovan
- Christine Dellis

Q and A



## Contact Information

Timothy Fong MD

UCLA Gambling Studies Program

310-825-1479 (office)

[tfong@mednet.ucla.edu](mailto:tfong@mednet.ucla.edu)

Twitter handle: @fongster98