

Housekeeping Items

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- The Live Webinar is being recorded.
- Webinar participants are muted upon entry and exit of webinar.
- Webinar attendance will be noted via log in and call in with assigned unique Attendee ID #. Please log in through a computer (instead of cell phone) to Join Webinar / Join Event and choose the Call In option to call in by telephone with the event call in number, event access code and assigned unique attendee ID number. If your name does not appear on our WebEx Final Attendance and Activity Report (only as Caller User #) and no submission of online survey, no CME or CE certificate will be provided.
- Questions will be managed through the Chat feature and will be answered at the end of the presentation. <u>Please keep questions brief and send to All Panelists.</u>

 One of our Learning and Development Team members and/or webinar host, will read the questions via Chat when it's time for Q & A session (last 30 minutes of live webinar).
- Please send a message to the Host via Chat if you cannot hear the presenter or see the presentation slides.



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- Partial credits are not allowed at L.A. Care's CME/CE activities for those who log in late (more than 15 minutes late) and/or log off early.
- PowerPoint Presentation is allotted 60 minutes and last 30 minutes for Q&A session, total of 90-minute webinar, 1.50 CME credits for L.A. Care Providers and other Physicians, 1.50 CE credits for NPs, RNs, LCSWs, LMFTs, LPCCs, LEPs, and other healthcare professionals. Certificate of Attendance will be provided to webinar attendees without credentials.
- <u>Friendly Reminder</u>, a survey will pop up on your web browser after the webinar ends. Please do not close your web browser and wait a few seconds, and please complete the survey. <u>Please note:</u> the online survey may appear in another window or tab after the webinar ends.
- Within two (2) weeks after webinar and upon completion of the online survey, you will receive the PDF CME or CE certificate based on your credential and after verification of your name and attendance duration time of at least 75 minutes for this 90-minute webinar.
- •The PDF webinar presentation will be available within 6 weeks after webinar date on lacare.org website located at https://www.lacare.org/providers/provider-central/provider-programs/classes-seminars
- Any questions about L.A. Care Health Plan's Provider Continuing Education (PCE) Program and our CME/CE activities, please email Leilanie Mercurio at lmercurio@lacare.org

Presenter's Bio

Dr. Matthew Torrington is a family medicine doctor with a specialty in addiction medicine. He is board certified by the American Board of Family Medicine and the American Board of Preventive Medicine in Addiction Medicine. He is a distinguished fellow of the American Society of Addiction Medicine, serves as the Chair of the California Society of Addiction Medicine Committee on Opioids and is a member of the CSAM Board of Directors.

Dr. Torrington serves as Cri Help's Medical Director and has supported their clinical detox service since 2003. Dr. Torrington has been a volunteer clinical professor of the UCLA Nursing school since 2009. Dr. Torrington maintains a private practice focusing on the longitudinal disease management of difficult addiction and pain cases.

As a participant in the development and implementation of significant research studies, Dr. Torrington has served as Principle Investigator, co-investigator or study physician on numerous clinical trials. Dr. Torrington has participated in the clinical use and clinical research of buprenorphine for more than 20 years. Since the early 2000s he has helped to educate physicians, researchers, psychologists, counselors and the public about the clinical use of buprenorphine.

Opioid Use Disorder What is the problem? What to do about it?

July 27, 2023 Live Webinar, 12:00 pm – 1:30 pm PST, 1.50 CME/CE Credits Directly Provided CME/CE Activity by L.A. Care Health Plan

Matthew A. Torrington, MD

ABPM, ABFM, DFASAM
Private Practice, Culver City CA
Medical Director, CRI Help/Socorro, North Hollywood, CA
Associate Professor v UCLA David Geffen School of Nursing
CSAM Board of Directors, Chair CSAM Opioid Committee

Disclosures

The following CME Planners and CME Faculty do not have any financial relationships with ineligible companies in the past 24 months.

- Leilanie Mercurio, L.A. Care PCE Program Manager, CME Planner.
- Matthew A. Torrington, MD, Family and Addiction Medicine Physician, CME Planner and Faculty.

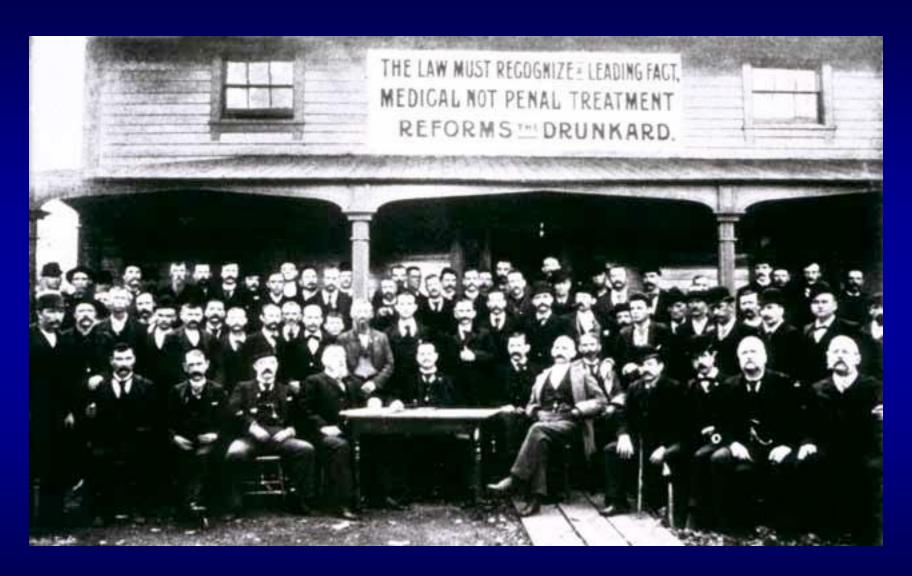
An ineligible company is any entity whose primary business is producing, marketing, selling, re-selling, or distributing healthcare products used by or on patients.

Commercial support was not received for this CME activity.

Learning Objectives

- 1. Identify, assess, and diagnose patients with opioid use disorder while considering severity, chronicity, individual characteristics, and psychiatric and medical comorbidities.
- 2. Develop an individualized, patient-centered treatment plan including negotiating treatment goals by evaluating appropriate medication- and psychosocial-based treatment options.
- 3. Monitor progress and modify treatment plan based on patient needs and progress toward treatment goals.
- 4. Examine misconceptions, stigma, and complexities (bioethical, social, clinical, public health) associated with opioid use disorder and the use of medications to treat opioid use disorder.





Keeley League Meeting, Dwight, Illinois, 1891

ADDICTION DEFINITON



 is a primary, chronic disease of brain reward, motivation, memory and related circuitry.
 Dysfunction in these circuits leads to characteristic biological, psychological, social and spiritual manifestations. This is reflected in an individual pathologically pursuing reward and/or relief by substance use and other behaviors.

– (ASAM definition, Short Version)

ADDICTION DEFINITON as of 11.2019

• Addiction is a treatable, chronic medical disease involving complex interactions among brain circuits, genetics, the environment, and an individual's life experiences. People with addiction use substances or engage in behaviors that become compulsive and often continue despite harmful consequences.

• Prevention efforts and treatment approaches for addiction are generally as successful as those for other chronic diseases.

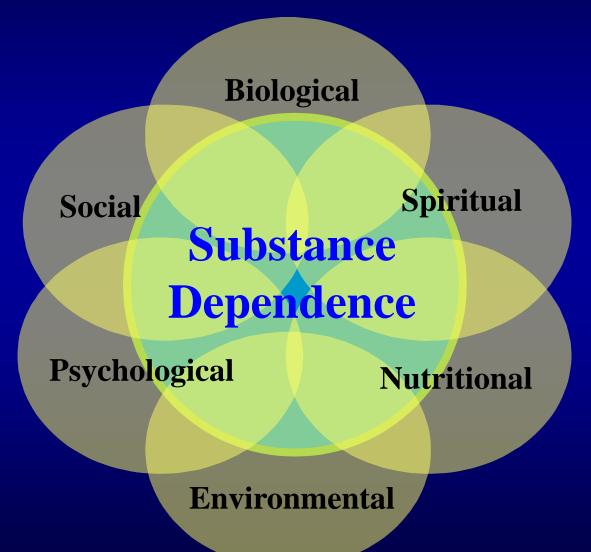
RECOVERY from Mental Disorders and Substance Use Disorders defined Substance Abuse and Mental Health Services Administration

"Recovery from Mental Disorders and Substance Use Disorders" is a process of change through which individuals improve their health and wellness, live a self-directed life, and strive to reach their full potential.

- •*Health*: overcoming or managing one's disease(s) as well as living in a physically and emotionally healthy way;
- •*Home:* a stable and safe place to live;
- •*Purpose:* meaningful daily activities, such as a job, school, volunteerism, family caretaking, or creative endeavors, and the independence, income and resources to participate in society; and
- •Community: relationships and social networks that provide support, friendship, love, and hope.

http://www.asam.org/research-treatment/recovery

Substance Dependence A Multifactorial Brain Disease



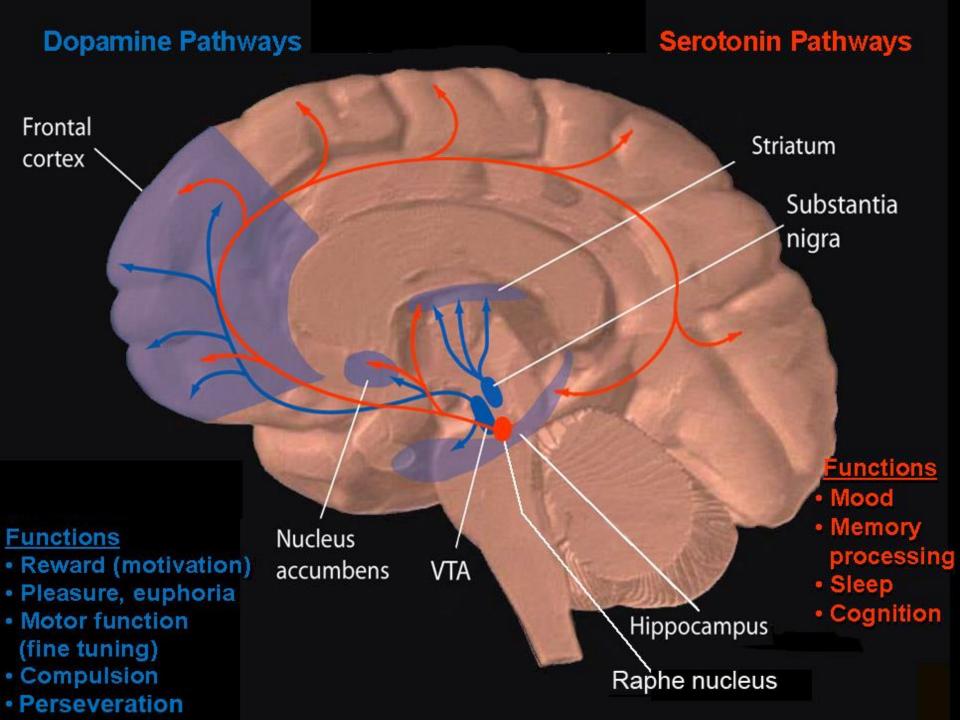


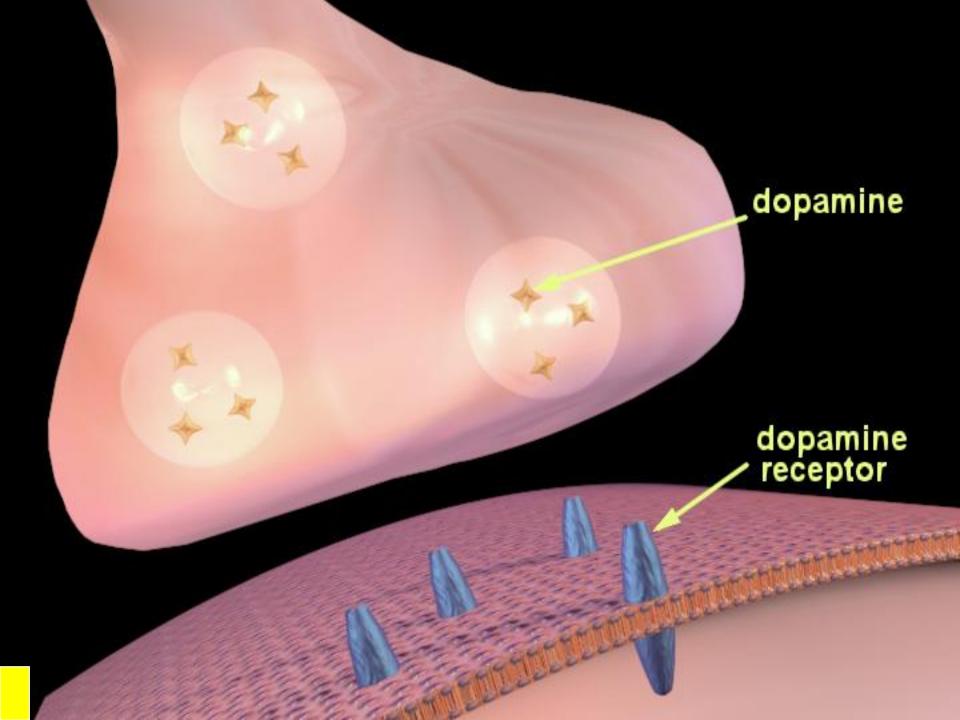
http://www.drugabuse.gov/publications/seeking-drug-abuse-treatment/3-does-program-adapt-treatment-patients-needs-change

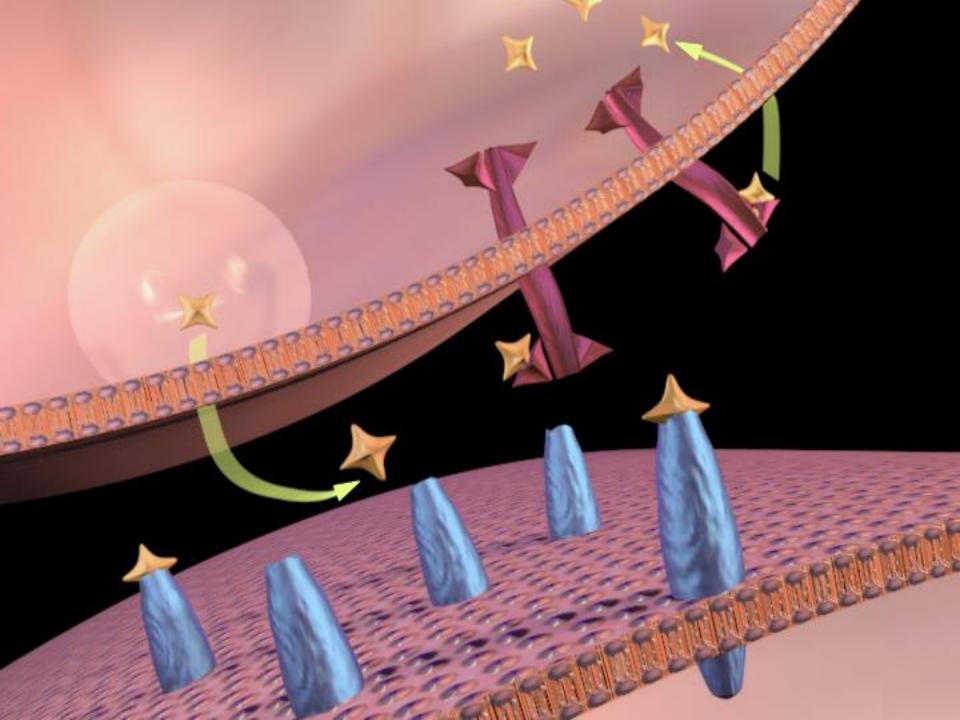
The Power of Compound Interest

\$1,000 Compounding at 8% Annually

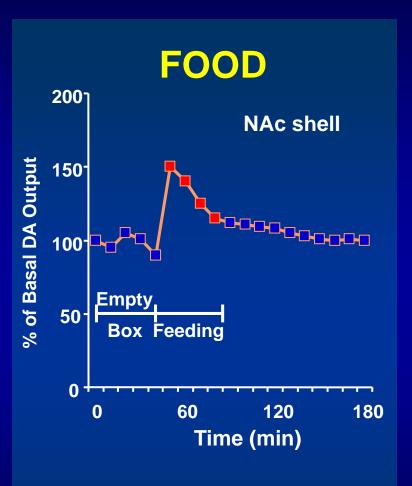


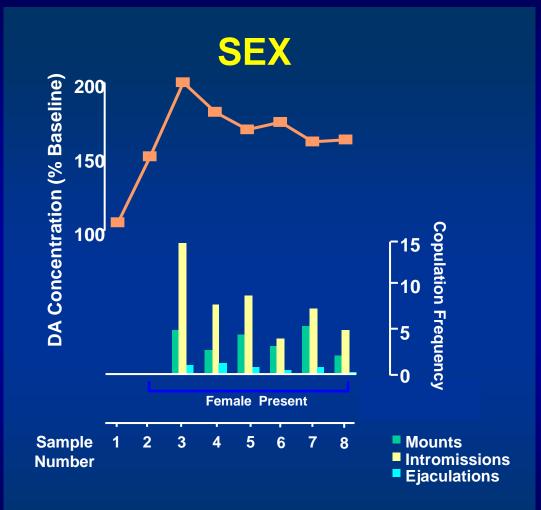






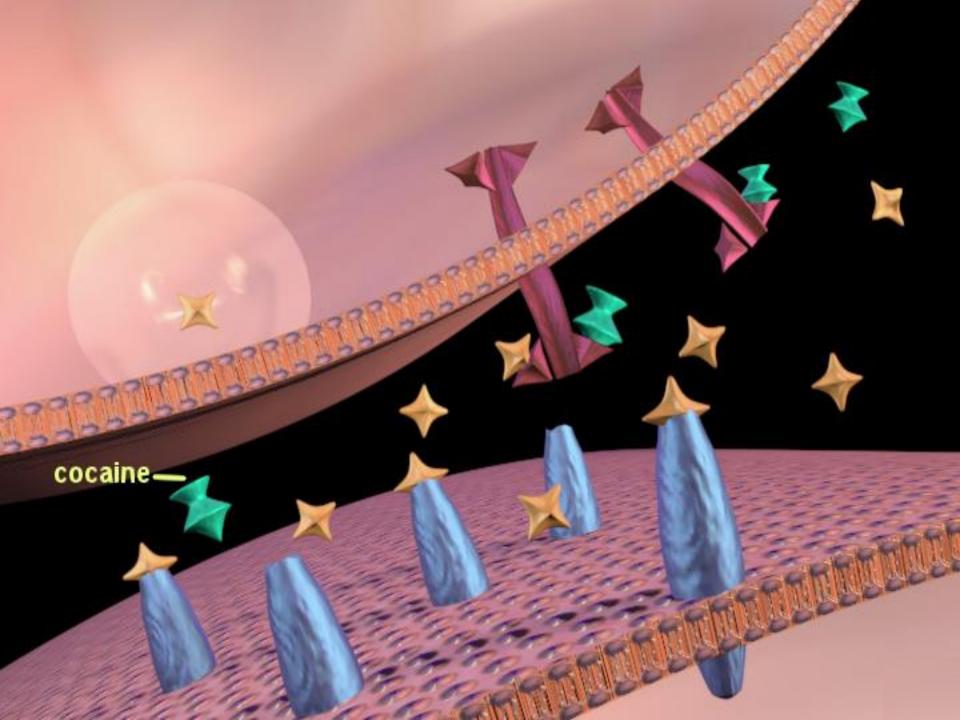
Natural Rewards Elevate Dopamine Levels



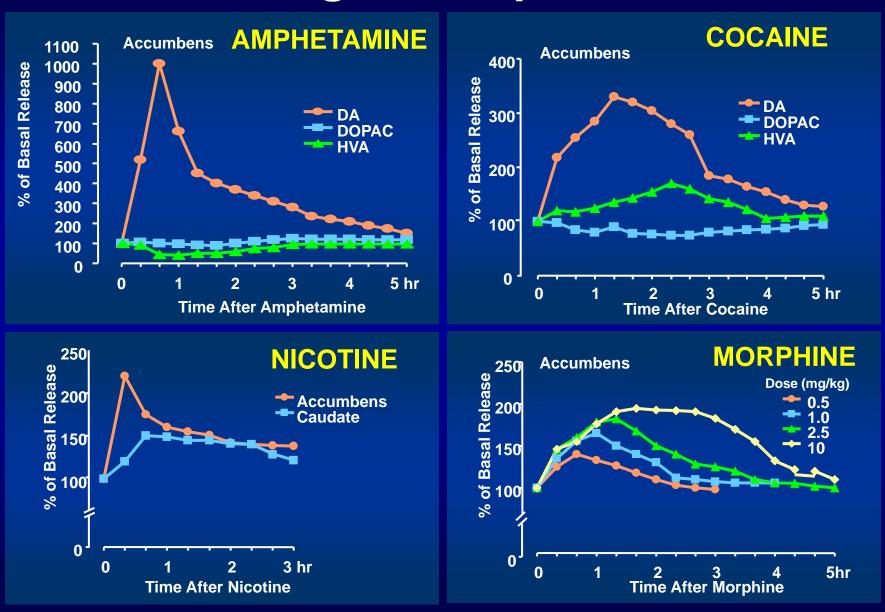


Di Chiara et al., Neuroscience, 1999.

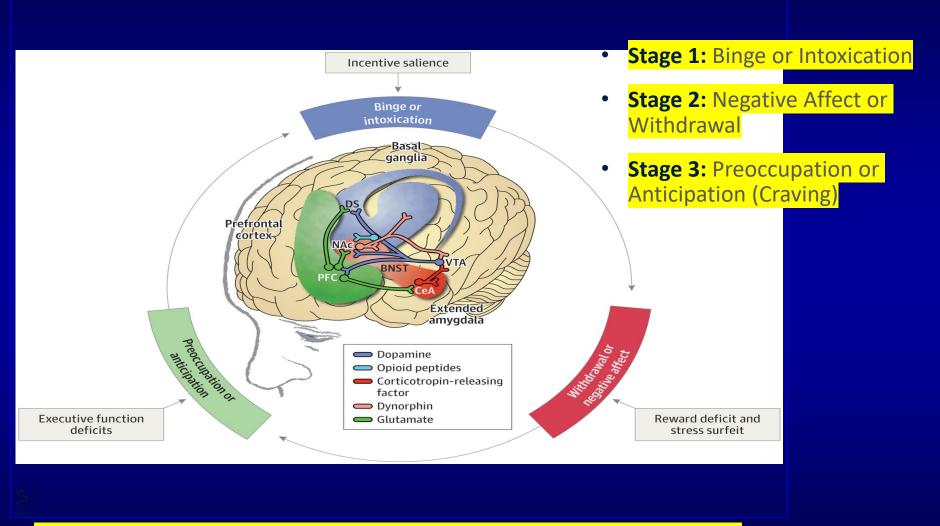
Fiorino and Phillips, J. Neuroscience, 1997.



Effects of Drugs on Dopamine Release



Three Stages of the Addiction Cycle and Associated Neural Circuits



Volkow, N. D., Jones, E. B., Einstein, E. B., & Wargo, E. M. (2019). Prevention and treatment of opioid misuse and addiction: A review

Adverse Childhood Experiences [ACE] Study

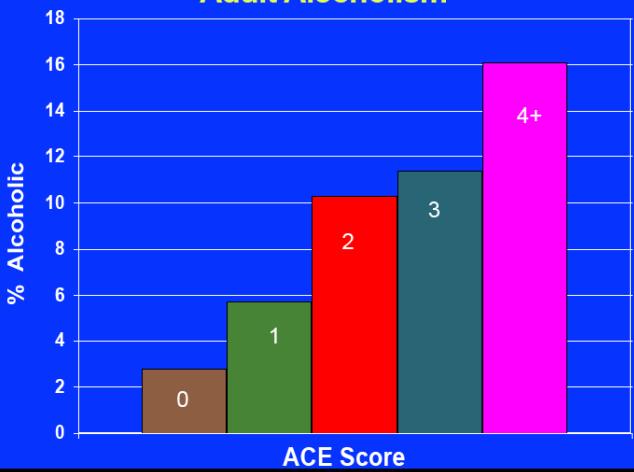
Within First 18 Years of Life

- 1. Emotional Abuse
- 2. Physical Abuse
- 3. Sexual Abuse
- 4. Emotional Neglect
- 5. Physical Neglect
- 6. Mother Treated Violently
- 7. Household Substance Abuse
- 8. Household Mental Illness/Suicide Attempt
- 9. Parental Separation/Divorce
- 10. Incarcerated Household Member



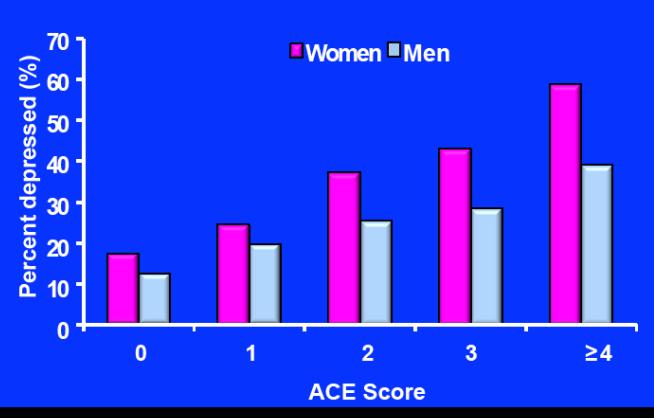


Adverse Childhood Experiences & Adult Alcoholism



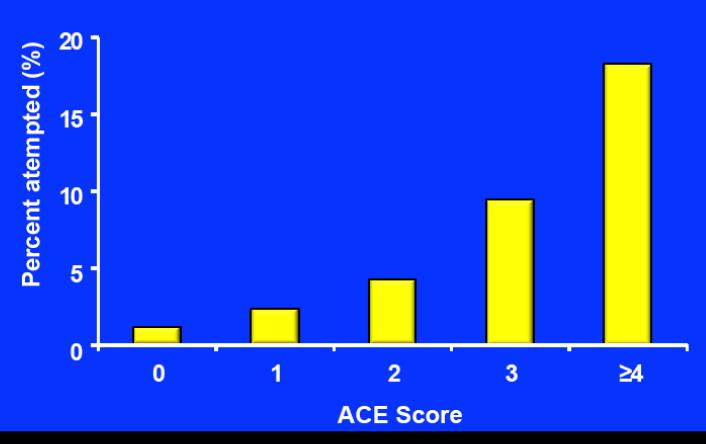


ACE Score & Lifetime History of Depression



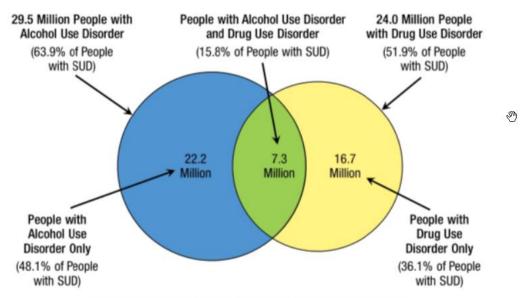


ACE Score & Prevalence of Attempted Suicide





Alcohol Use Disorder and Drug Use Disorder in the Past Year: Among People Aged 12 or Older with a Past Year Substance Use Disorder (SUD); 2021



46.3 Million People Aged 12 or Older with Past Year SUD



RAPID Sample

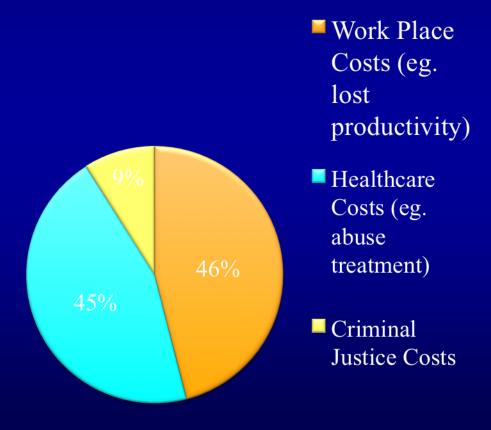
- 75% self-report they used opioids to <u>self-medicate</u> psychiatric related issues.
- 85% self-report the use of opioids to "escape from life".
- No difference between those who started using from a doctor's prescription and those who experimented.



Massive National Problem

- In 2013, opioid use increased globally, while the main increase is in the United States with an estimated cost of \$55.7 billion¹
 - Past year illicit drug use in the United States is the highest it has been in 10 years
 - Treatment admissions for opiates other than heroin now surpasses treatment admissions for cocaine and methamphetamine

Breakdown of \$55.7 Billion in Prescription Opioid Abuse Costs



Adapting a methodology used by the CDC to estimate the cost of the opioid epidemic in 2017, the JEC estimates the opioid epidemic cost

\$1.04 trillion in 2018 \$985 billion in 2019 nearly \$1.5 trillion in 2020.

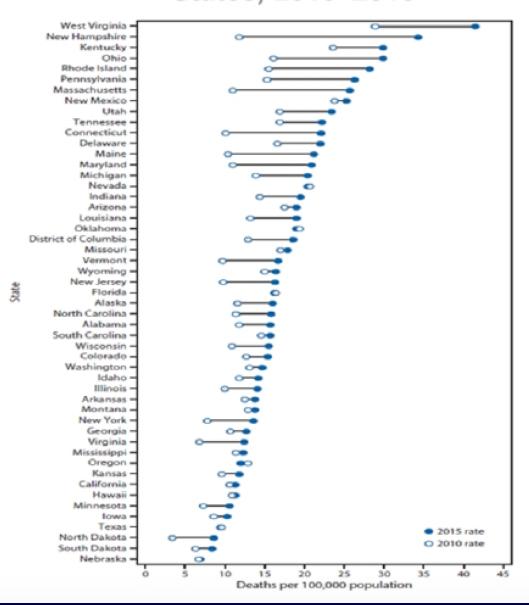
The rise in fatal opioid overdoses in 2021 suggests the total cost is likely to continue to increase. Sep 28, 2022

https://beyer.house.gov/news/documentsingle.aspx?DocumentID=5684

RECENT TRENDS

- Drug Overdose Deaths in the U.S. Top 100,000 Annually
- Life Expectancy in the U.S. Declined a Year and Half in 2020
 - The drop in life expectancy in 2020 was the largest one-year decline since World War II

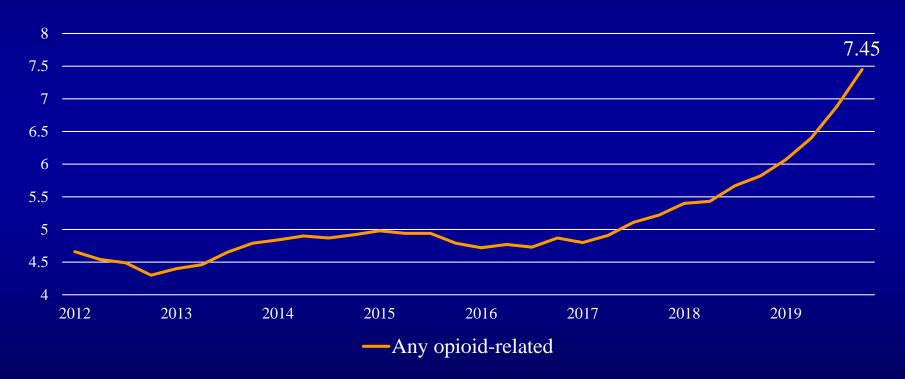
Variation in Trends of Fatal Drug Overdoses across States, 2010–2015





California Opioid Overdose Death Rate

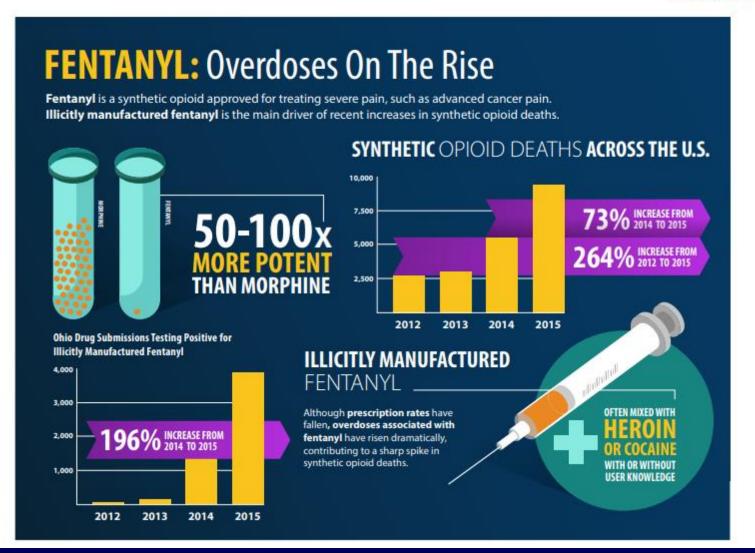
12-month moving average (per 100,000 residents)



Data Source: California Department of Public Health (CDPH) Safe and Active Communities Branch (2020). California Opioid Surveillance Dashboard.

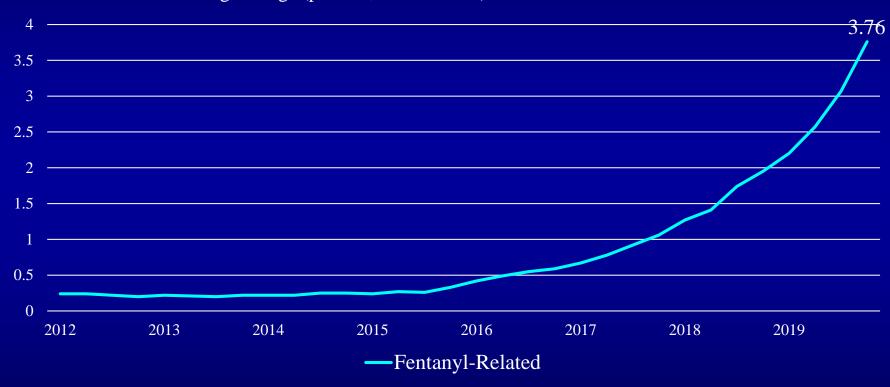
Available at: https://skylab.edph.ca.gov/ODdash/

Brandeis University



Fentanyl-Related Overdose Death Rate

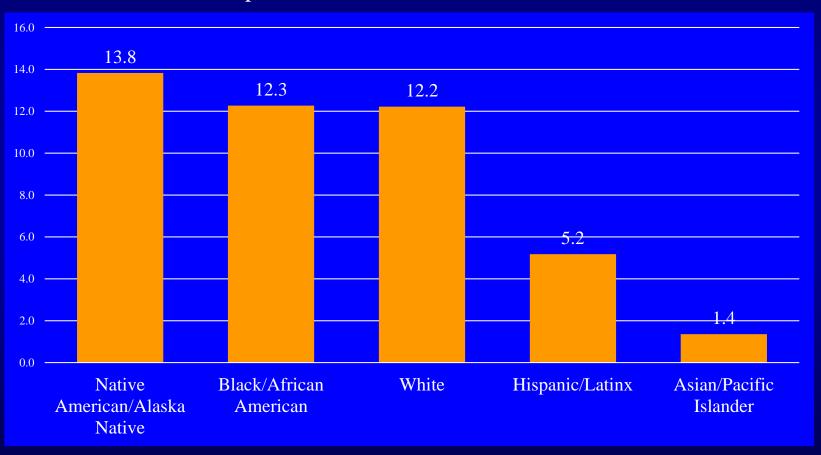
12-month moving average (per 100,000 residents)



Data Source: California Department of Public Health (CDPH) Safe and Active Communities Branch (2020). California Opioid Surveillance Dashboard. Available at: https://skylab.cdph.ca.gov/ODdash/

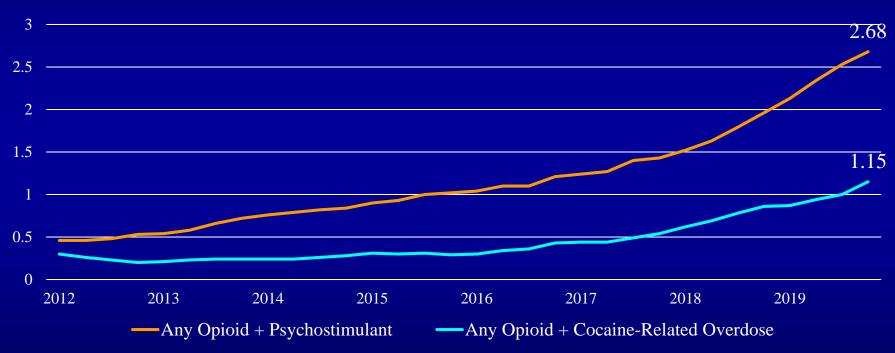
Opioid Overdose Death Rates by Race / Ethnicity

2019 crude rate per 100,000 residents



Overdose Death Rates: Opioids + Stimulants

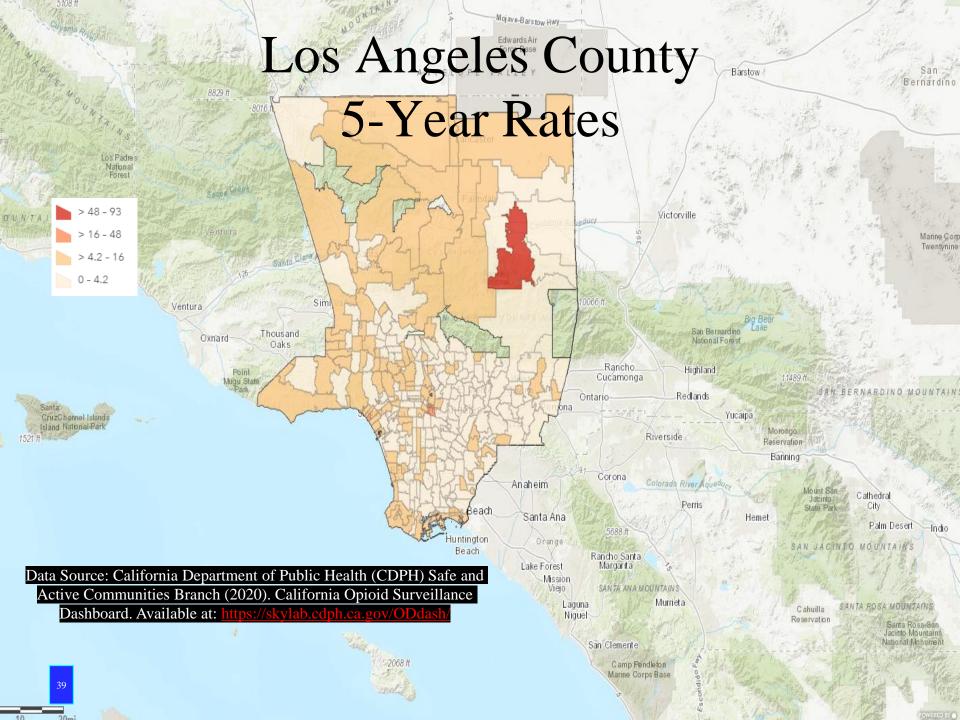


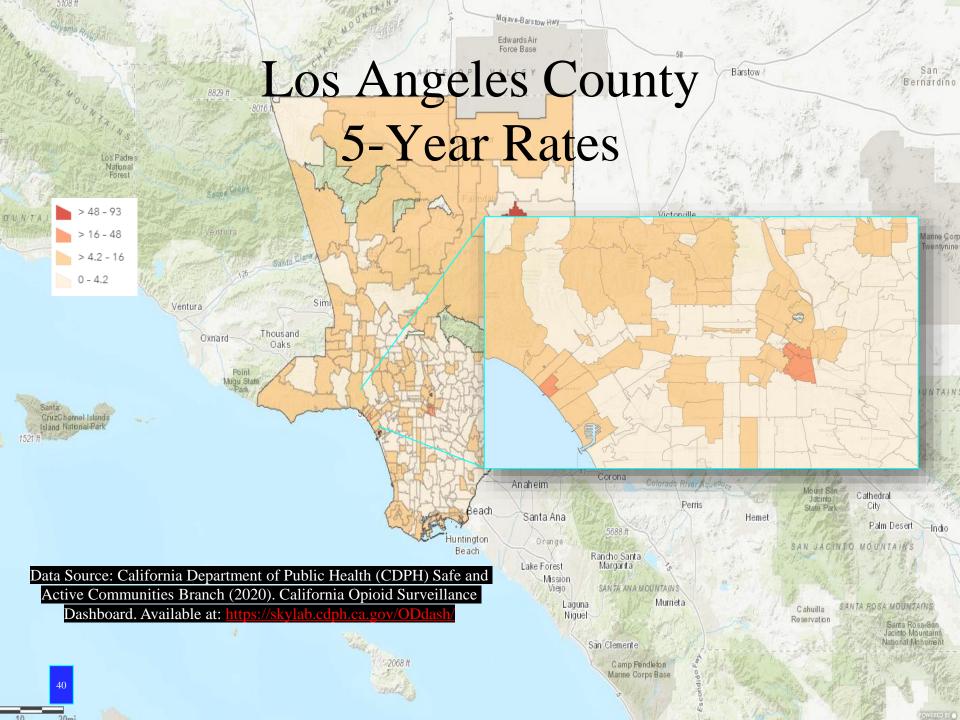


Data Source: California Department of Public Health (CDPH) Safe and Active Communities Branch (2020). California Opioid Surveillance Dashboard. Available at: https://skylab.cdph.ca.gov/ODdash/

Opioid Overdose Death Rates by County









Fatal dose of fentanyl (2 mg or 2000 mcg)



Fatal dose of carfentanil (0.02 mg or 20 mcg)

Medication Assisted Treatment (MAT)

• MAT is the use of medications, in combination with counseling and behavioral therapies, to provide a whole-patient approach to the treatment of substance use disorders.

http://www.dpt.samhsa.gov/patients/mat.aspx

MAT (cont.)

- Research shows that when treating substance-use disorders, a combination of medication and behavioral therapies is most successful.
- MAT is clinically driven with a focus on individualized patient care.

MEDICATION ASSISTED ADDICTION TREATMENT

"All Treatments Work For Some People/Patients"

"No One Treatment Works for All People/Patients"

-Alan I. Leshner, Ph.D Former Director NIDA

"Those who do not remember the past are condemned to repeat it."
-George Santayana 1863-1952



The Business Case for MAT

- The estimated expense to society of opioid addiction nears \$20 billion annually
- The cost of treating an individual addicted to opioids is only \$4,000 per year.
- If every opioid-dependent person in the United States received treatment, \$16 billion would be saved every year.

"Methadone Maintenance and Other Pharmacotherapeutic Interventions in the Treatment of Opioid Addiction." April 2002, Vol. III, No. 1

WHO published best practice guidelines favor MAT

WHO – Substitution Maintenance Therapy in the Mgmnt of Opioid Dep. and HIV/AIDS Prevention. 2004.

WHO – Access to Controlled Meds Programme 2007.

WHO – Principles of Drug Dependence Treatment. 2008.

WHO – Guidelines for the Psychosocially Assisted Pharmacological Treatment of Opioid Dependence .2009.

WHO – Tech Guide for Countries to Set Targets for Universal Access to HIV Prevention, Treatment and Care for Injecting Drug Users (IDUs). 2009

Reshevska, I., K. Foreit, K. Beardsley, and L. Porter. 2010. *Policy Advocacy Toolkit for Medication-Assisted Treatment (MAT) for Drug Dependence*. Washington, DC: Futures Group, Health Policy Initiative, Task Order 1.

MAT Evidence: when part of a comprehensive program shown to

- Improve outcomes
- Increase retention in treatment
- Decrease illicit opiate use
- Decrease hepatitis and HIV infections
- Decrease criminal activities
- Increase employment
- Improve birth outcomes for patients²
 - http://www.dpt.samhsa.gov/patients/mat.aspx

FDA Approved Medications OPIATE USE DISORDER

- methadone, ® Dolophine
- Buprenorphine sl, Subutex®
- Buprenorphine/naloxone sl, Suboxone®, Zubsolv®
- -Buprenorphine subdermal: Sublocade®, Brixadi®
- -Oral Naltrexone, ReVia®, Depade®
- Long acting depot Naltrexone,VIVITROL®

Methadone, ®Dolophine

Mechanism of Action

binds to various opioid receptors, (full opioid agonist)

Cost

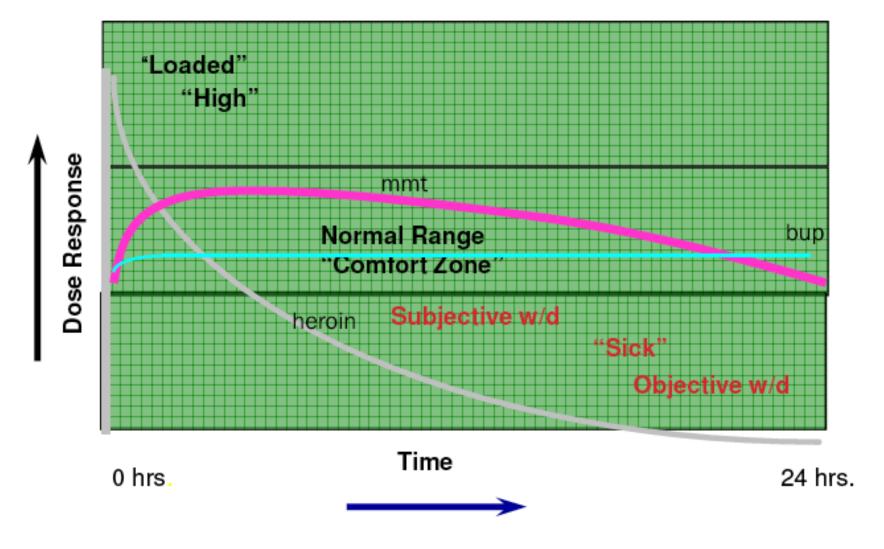
- "pennies per day"

Full Agonists for Opiate Dependence

METHADONE

- Long acting opiate agonist
- Combats withdraw and craving
- must be dosed in NTPs, daily dosing mandatory until patient stable...months
- Outpatient treatment after patient considered very low risk....years
- LAAM: longer acting (dose 3 X a week)
 - NO LONGER AVAILABLE:poor cost/profit ratio, and potential for increased QT intervals

Methadone Simulated 24 Hr. Dose/Response At steady-state in tolerant patient



Methadone Effectiveness

Gunne & Gronbladh, 1984

Baseline

 Methadone
 Regular Outpatient

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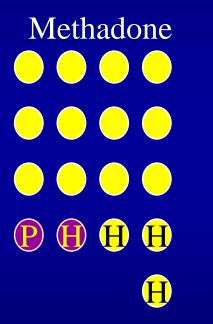
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Methadone Effectiveness

Gunne & Gronbladh, 1984

After 2 Years



No Methadone



$$\bullet \bullet \bullet^2 \bullet^3 \bullet$$

$$\mathbf{H}$$
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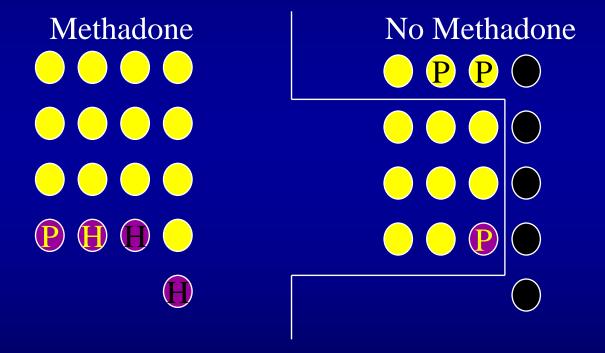


- 1- Sepsis & endocarditis
- 2- Leg amputation
- 3- Sepsis

Methadone Effectiveness

Gunne & Gronbladh, 1984

After 5 Years



Mortality in heroin addiction: impact of methadone treatment

Grönbladh L, Öhlund LS, Gunne LM. Mortality in heroin addiction: impact of methadone treatment.

Acta Psychiatr Scand 1990: 82: 223-227.

L. Grönbladh, L. S. Öhlund, L. M. Gunne

Department of Psychiatry, Ulleråker, Uppsala,

1979-1984; NO Admit to MMTP

Yearly Death Rates: IV ODs MT=1.4, VD=1.7, ID=6.91, UC=7.2

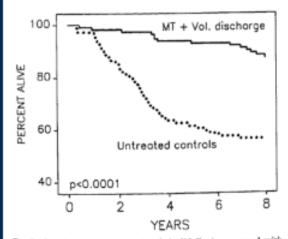


Fig. 2. Survivors in cohorts 1 + 2 (solid line) compared with controls (dotted).

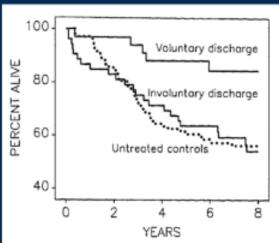
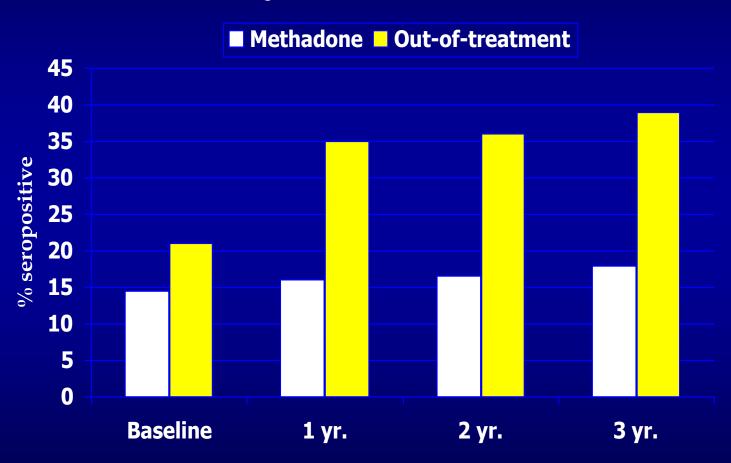


Fig. 3. Cohort 2 (voluntary discharge; upper solid line) contrasted to cohort 3 (involuntary discharge; lower solid line) and controls (dotted line).

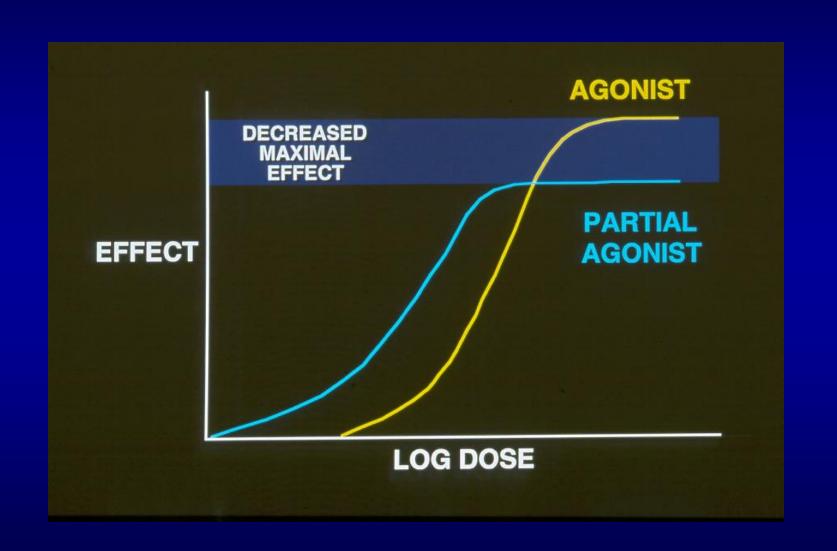
Methadone Treatment Decreases HIV Seroincidence

Metzger et al. JAIDS 1993;6:1049.

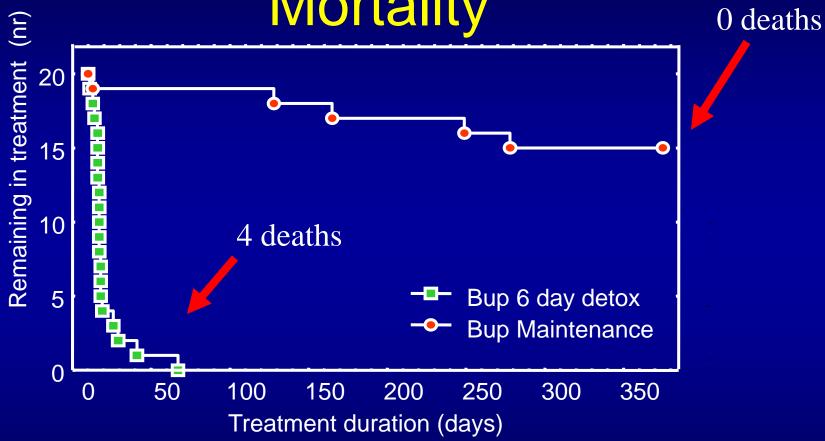


Buprenorphine for Opiate Dependence:

- Suppresses withdrawal
- Substitutes for street opiates
- Blocks subsequently administered opiates
- Safety in long term use



Buprenorphine: Retention and Mortality 0 de



All Patients received group CBT Relapse Prevention, Weekly Individual Counseling, 3x Weekly Urine Screens. n=20 per group

Buprenophine SL, "Subutex®"

Mechanism of Action

 binds to various opioid receptors, producing agonist and antagonist effects (opioid agonistantagonist), aka PARTIAL AGONIST

• Cost

- \$2-4.00 per 8mg sublingual pill GENERIC
- \$10.16 per 8mg sublingual pill, Subutex®

Epocrates Online Premium: https://online.epocrates.com

Buprenorphine/naloxone SL:

Suboxone®, Zubsolv®

- Mechanism of Action
 - PARTIAL AGONIST effect with antagonist
 - Antagonist works to make formulation less likely to be injected
- COST
- \$7.33 per 8mg sublingual pill
- Apx same for sublingual film
- No generic available

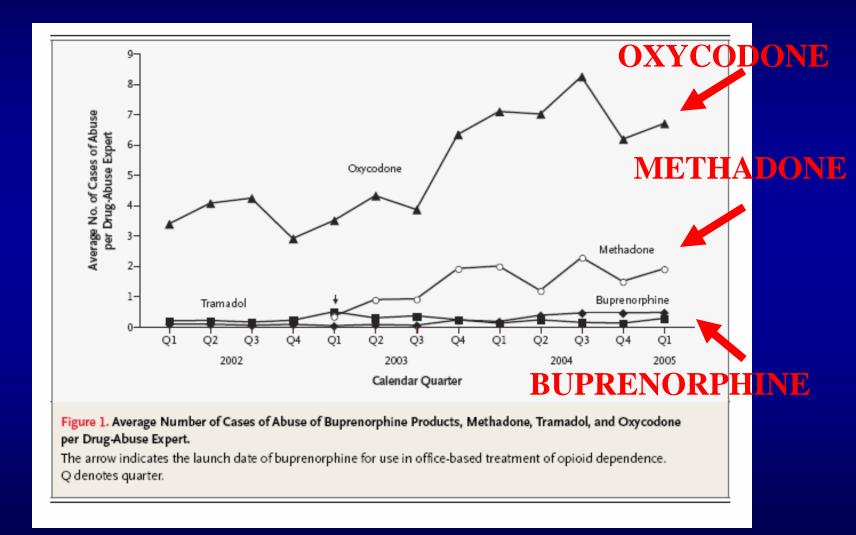
Epocrates Online Premium: https://online.epocrates.com

Buprenorphine subdermal: Sublocade®, Brixadi®

- Sublocade®: q 4 weeks
 - 300mg X 2 then 100mg
 - Cost: apx \$2000/month
- Brixadi: q 1 and/or 4 weeks
 - 8 mg per 0.16 mL, 16 mg per 0.32 mL, 24 mg per 0.48 mL, 32 mg per 0.64 mL, 64 mg per 0.18 mL, 96 mg per 0.27 mL, 128 mg per 0.36 mL
 - Cost ???
- No generic available

Epocrates Online Premium: https://online.epocrates.com

Buprenorphine Diversion



Oral Naltrexone, ReVia®, Depade®

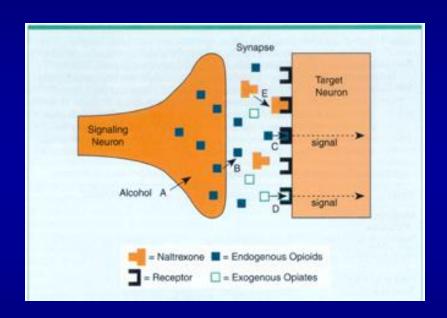
Mechanism of Action

antagonizes various opioid receptors (opioid antagonist)

Cost

- ReVia® 50 mg (1 bottle, 30 ea): \$259.70
- Naltrexone 50 mg (30 ea): \$103.99

Naltrexone



- A) Alcohol is thought to stimulate the release of endogenous opioids, which may produce the euphoric feelings associated with alcohol consumption.
- B) Endogenous opioids (e.g., betaendorphin) are released into the synapse (the space between the signaling and target neurons) and
- C) stimulate activity at opiate receptors, which produces a signal in the target neuron.
- D) Exogenous opiates such as morphine also stimulate opiate receptors.
- E) Naltrexone is thought to block opioids from activating opiate receptors.

Long acting depot Naltrexone, VIVITROL®

- Mechanism of Action antagonizes various opioid receptors (blocks opiate mediated euphoria)
- Cost
 - 380 mg (1 vial): \$1,099.96
 - Covered by many insurances

Questions?

• Contact info:

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References

- *Tomkins DN, Sellers EM* (2001) Addiction and the brain: the role of neurotransmitters in the cause and treatment of drug dependence. *Canadian Medical Association Journal* 164 817-821
- O'Connor P, Fiellin DA. (2000) Pharmacological Treatment of Heroin-Dependent Patients *Annals of Internal Medicine* 133 40-54
- Sneader W. (1998) The Discovery of Heroin. *Lancet* 352 (9141) 1697-1699
- Rang HP, Dale MM, Ritter JM (1999). Pharmacology 4th ed. Edinburgh: Churchill Livingstone
- Wills S (1997) Drugs of abuse. London: Pharmaceutical Press
- Methadone Maintenance and Other Pharmacotherapeutic Interventions in the Treatment of Opioid Addiction." April 2002, Vol. Ill, No. 1
- Reshevska, I., K. Foreit, K. Beardsley, and L. Porter. 2010. *Policy Advocacy Toolkit for Medication-Assisted Treatment (MAT) for Drug Dependence*. Washington, DC: Futures Group, Health Policy Initiative, Task Order 1.
- http://www.dpt.samhsa.gov/patients/mat.aspx
- http://www.fda.gov/ForConsumers/ConsumerUpdates/ucm198176.htm
- Epocrates Online Premium: https://online.epocrates.com
- *MEDICATION ASSISTED TREATMENT* Michael Fingerhood MD FACP. Medications. Opiates. Naltrexone; Methadone; Buprenorphine. Alcohol ... *maryland-adaa.org/content_documents/.../FingerhoodMATWorkshop.pp*
- Thomas E. Freese, SBIRT slides, UCLA Integrated Substance Abuse Programs, tfreese@mednet.ucla.edu

Frequently Asked Questions (FAQs)

- 1. Which of the following FDA approved medications can only be used in the setting of an Opioid Treatment program for the outpatient treatment of opioid use disorder?
- a. Buprenorphine
- b. Buprenorphine/naloxone
- c. Naloxone
- d. Methadone
- e. Naltrexone
- 2. Which of the following domains of the bio, psycho, social, spiritual, nutritional model is most important for the treatment of substance use disorder.
- a. Biology
- b. Psychology
- c. Social changes
- d. Spiritual
- e. Nutritional
- All of the above: all five elements are important for the treatment of substance use disorders.

FAQs

3. The limbic brain is able to manipulate the way a person feels via the brain stem and cerebellum causing physiologic dysfunction (i.e. vomiting, diarrhea, muscle pain, insomnia) AND is able to manipulate the neocortex causing changes to normal thought patterns ("it doesn't matter," "I can stop later," "no one can tell," "I can afford it") in its attempts to facilitate reexposure to high dopamine releasing behavior.

a. TRUE or FALSE

4. There is only one way to help someone recover from alcohol or substance use disorder. Everyone requires the exact same combination of therapies in order to be successful.

a. TRUE or FALSE

Answers to FAQs:

- 1. D
- 2. F
- 3. True
- 4. False

Q & A Session



L.A. Care PCE Program Friendly Reminders

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<u>Please note:</u> the online survey may appear in another window or tab after the webinar ends.

Upon completion of the online survey, you will receive the pdf CME or CE certificate based on your credential, verification of name and attendance duration time of at least 75 minutes, within two (2) weeks after today's webinar.

Webinar participants will <u>only have up to two weeks after webinar date</u> to email Leilanie Mercurio at <u>Imercurio@lacare.org</u> to request the evaluation form if the online survey is not completed yet. No name, no survey or completed evaluation and less than 75 minutes attendance duration time via log in means No CME or CE credit, No CME or CE certificate.

Thank you!