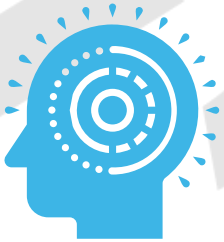
Caring through COVID-19

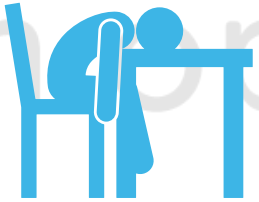
Medications for Opioid Use Disorder: Why, What, How?

Sandrine Pirard, MD, PhD, MPH
VP Medical Director



Anxiety

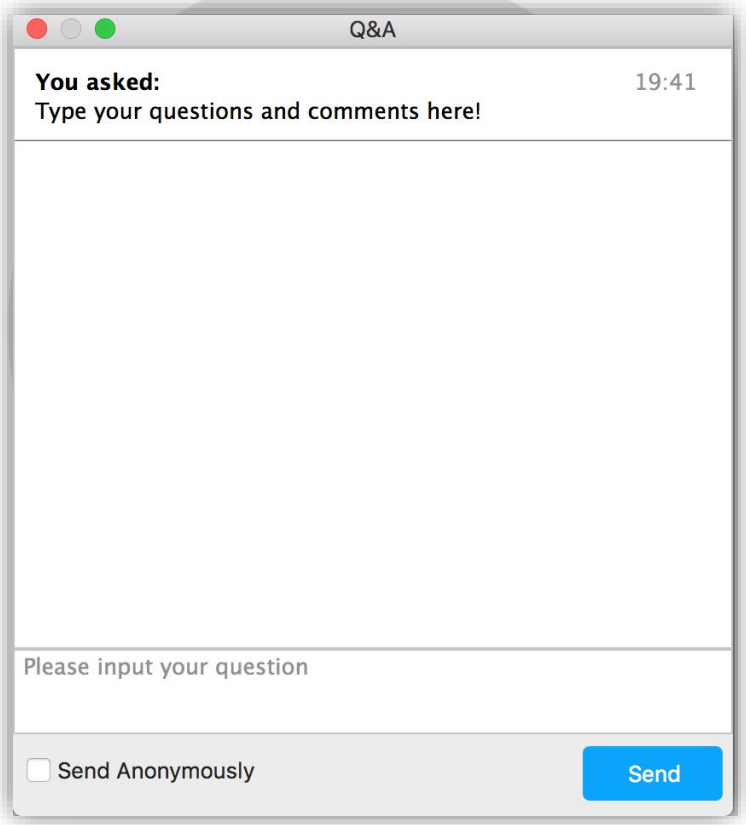
Depression



Job loss

Working remotely

Housekeeping Items



1. Today's webinar is 1 hour including Q&A.
2. All participants will be muted during the webinar.
3. Please use the Q&A function. We will monitor questions throughout and answer as many as possible at the end.
4. This webinar is being recorded and will be posted within 24 hours at www.beaconhealthoptions.com/coronavirus/ so you have continued access to the information and resources.

PLEASE NOTE: This presentation provides some general information that is subject to change and updates. It should not be construed as including all information pertinent to your particular situation or providing legal advice or medical advice, diagnosis or treatment of any kind. For legal advice, we encourage you to consult with your legal counsel regarding the topics raised in this presentation. At all times, please use your own independent medical judgment in the diagnosis and treatment of your patients.

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Today's speaker

Sandrine Pirard, MD, PhD, MPH
VP Medical Director

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Learning Objectives

1. Understanding Addiction
2. Medications for Opioid Use Disorder
3. Initiatives to support adoption of MOUD
4. Resources

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Chapter

01

Understanding Addiction

"We help people live their lives to their fullest potential."

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Our Commitment

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What is Addiction?

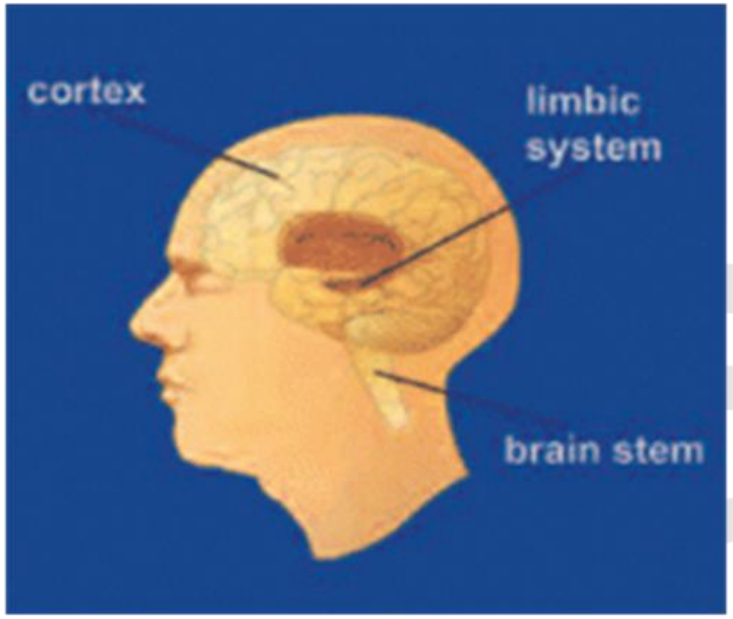
Lack of moral principles or willpower

or

Complex disease?

Three Main Players

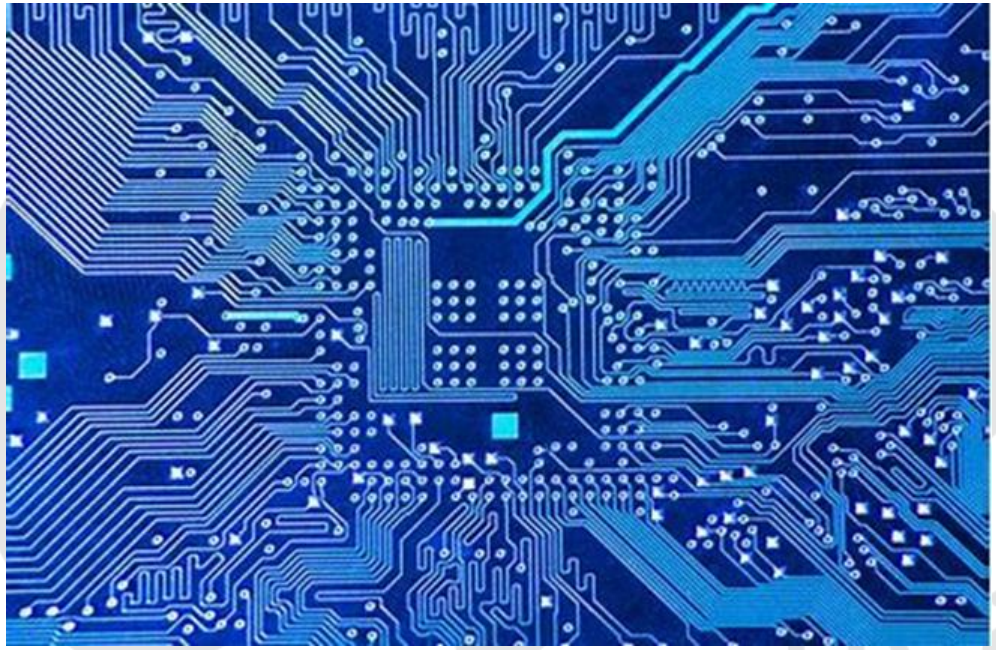
Frontal cortex
= thinking center of the brain (ability to think, plan, solve problems, and make decisions)

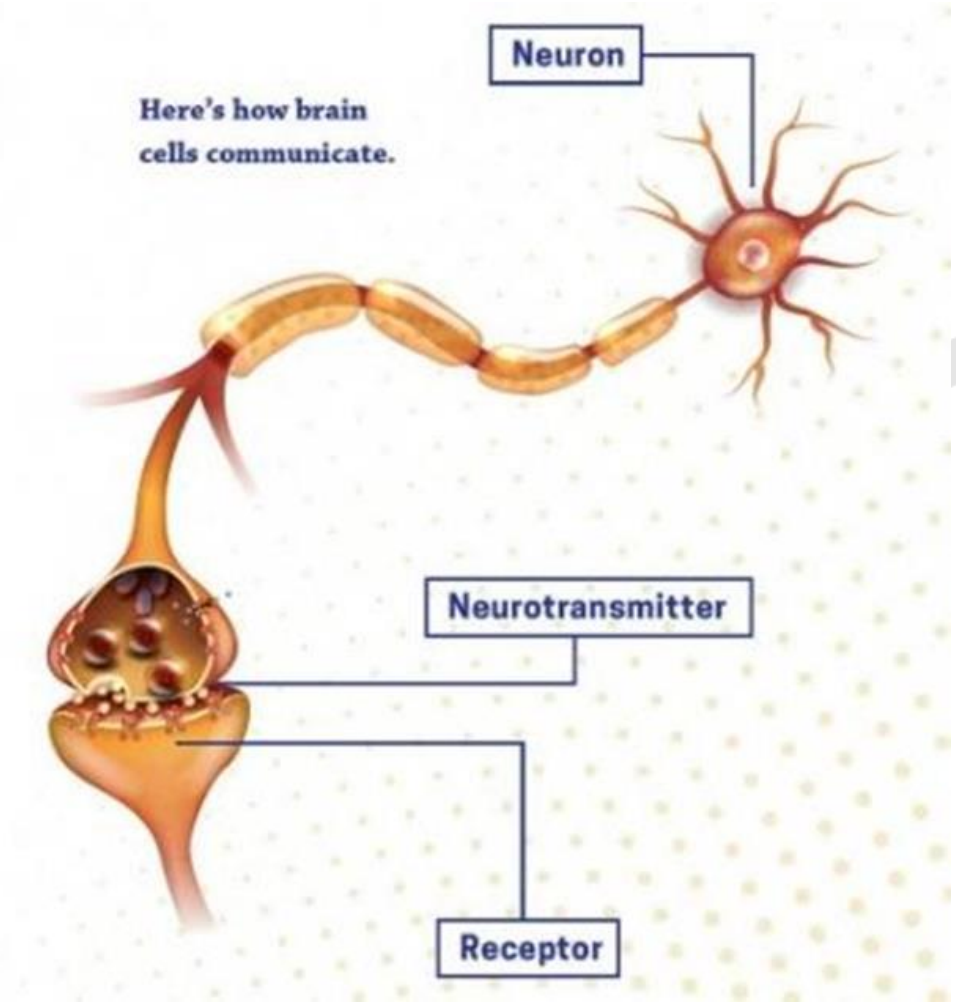


The limbic system contains the brain's reward circuit (ability to feel pleasure); triggered by food, sex, but also drugs
+
perception of other emotions, both positive and negative

Brain stem controls basic functions critical to life (heart rate, breathing, and sleeping)

Our Brain Circuit



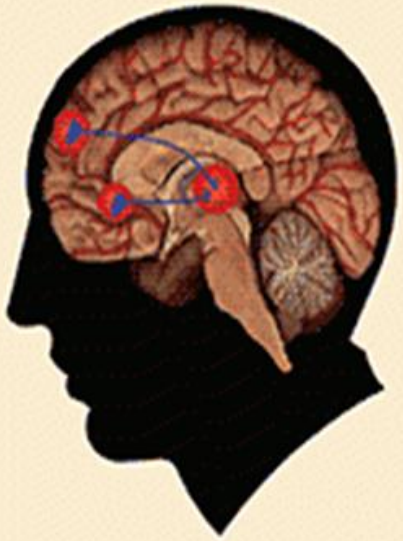


Which one would you pick?

Addiction and the Brain

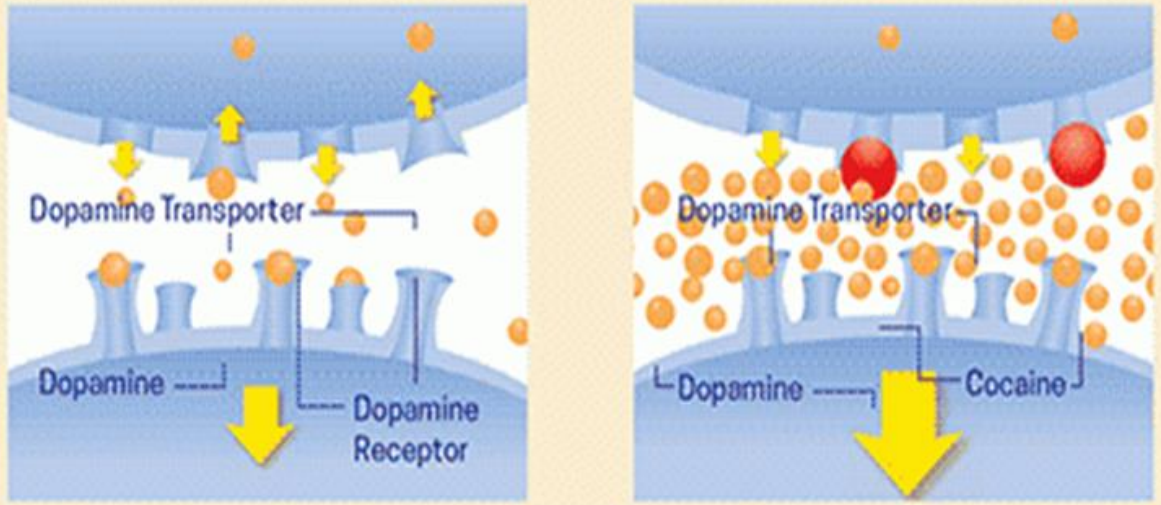
Some drugs target the brain's pleasure center

Brain reward (dopamine pathways)



These brain circuits are important for natural rewards such as food, music, and sex.

How drugs can increase dopamine

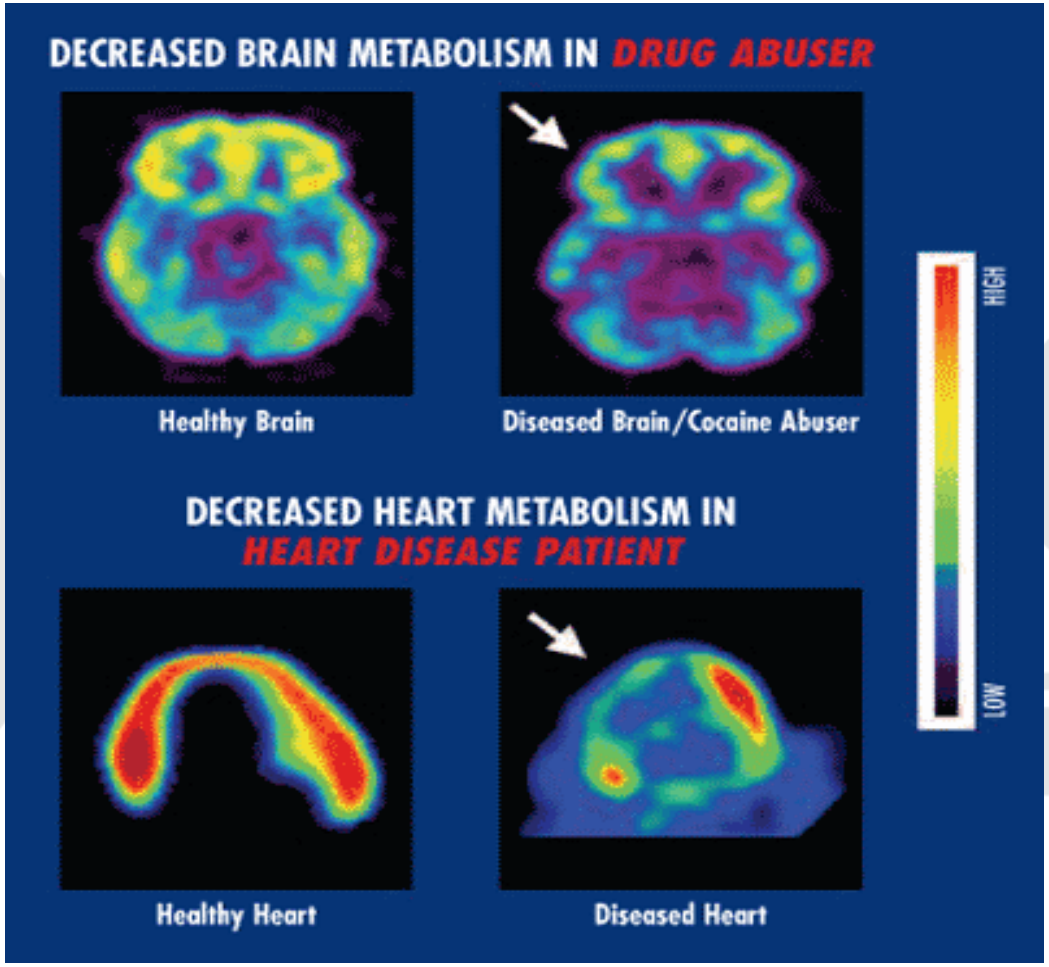


While eating food

While using cocaine

Typically, dopamine increases in response to natural rewards such as food. When cocaine is taken, dopamine increases are exaggerated, and communication is denied.

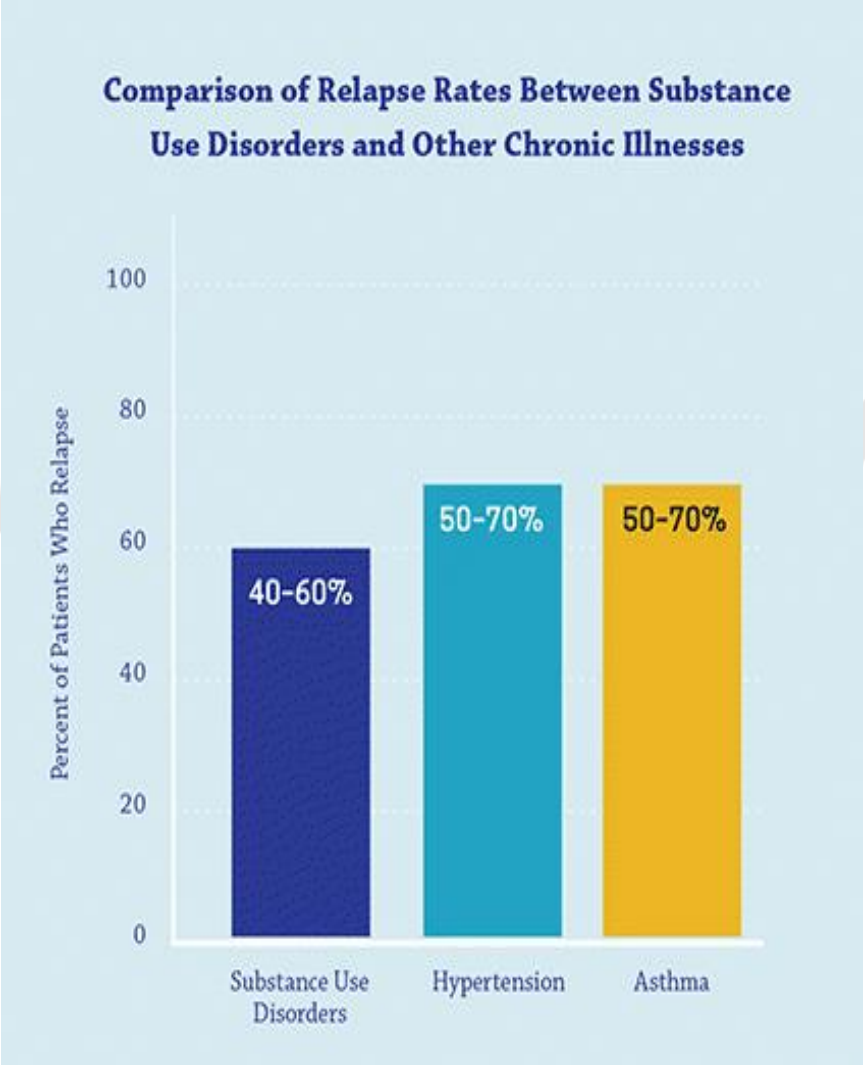
Addiction and the Brain continued…



Source: NIDA: Drugs, Brains, and Behavior: The Science of Addiction – http://www.drugabuse.gov/publications/science-addiction

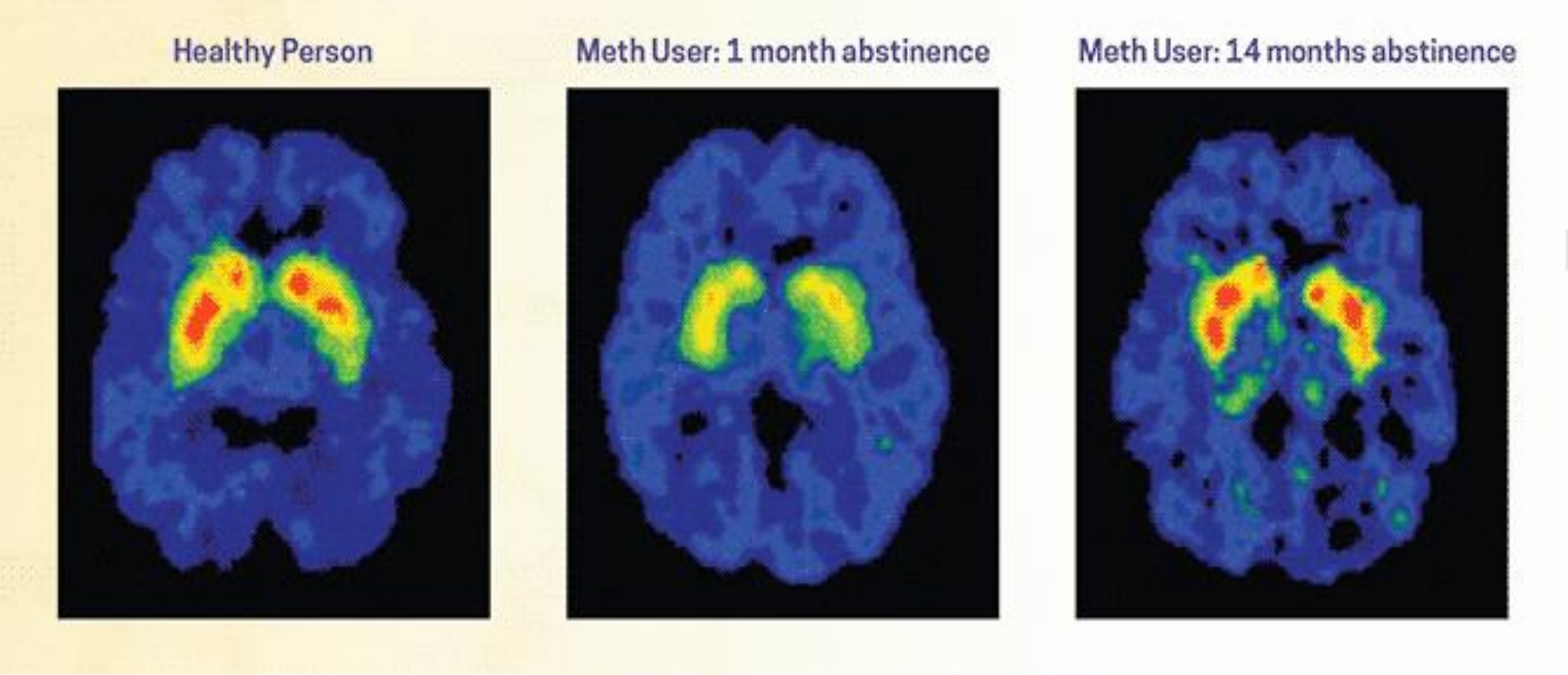
Addiction is a Chronic Disease

- Similar to HTN, diabetes, and asthma
  - Role of genetic, behaviors and environment
- Chronic illnesses are associated with:
  - Poor medication adherence (<50%)
  - Poor adherence to prescribed behavioral changes (<30%)
  - High level of relapse requiring ED or hospital admission (>50% per year)



(JAMA, 2000; 284:1689-1695)

Recovery is Possible



The Journal of Neuroscience, 2001; 21(23):9414-9418

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How can we Leverage Science?

- Chronic disease model: Long Term vs. Episodic Care
- Multifactorial: Multidimensional assessment and treatment
- Use of Evidence-based practices
- Relapse is part of disease
- Recovery is achievable

Chapter

02

Medications for Opioid Use Disorder (MOUD)

"We help people live their best life."

Medication for Opioid Use Disorder provides training.

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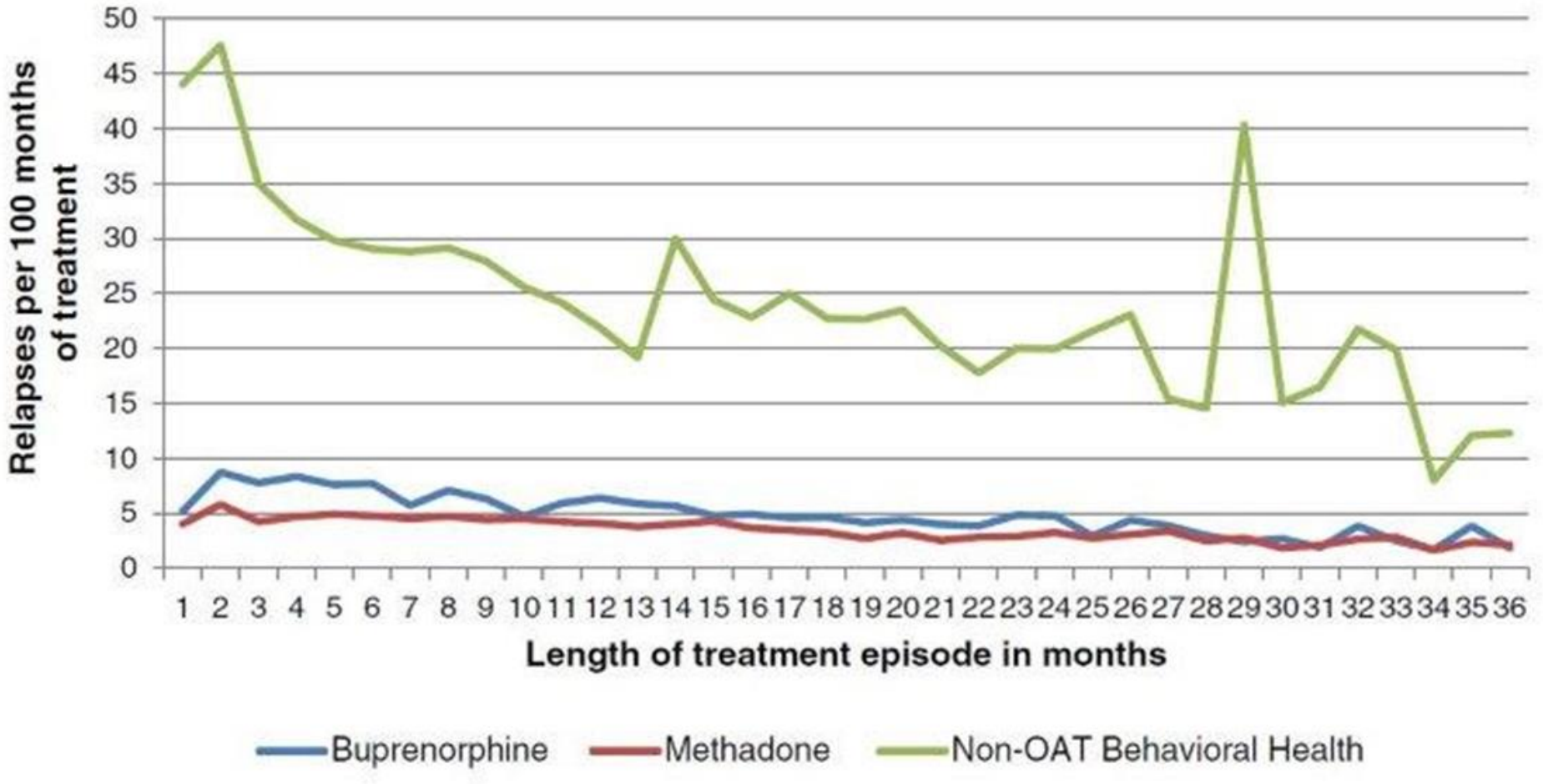
Our Commitment

A Case in Point: MOUD



Opioid agonist therapy (OAT) is associated with lower relapse risk and lower monthly expenditures

J Subst Abuse Treat. 2015; 57: 75–80

MOUD

MAT has three key parts:

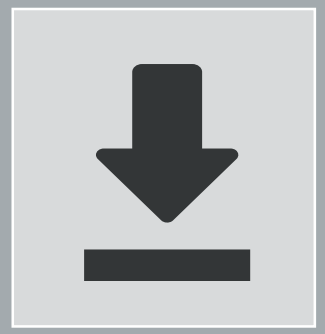
- Medication (MOUD)
- Counseling
- Support from family and friends

Three FDA-approved medications for OUD:

- Methadone
- Buprenorphine
- Naltrexone

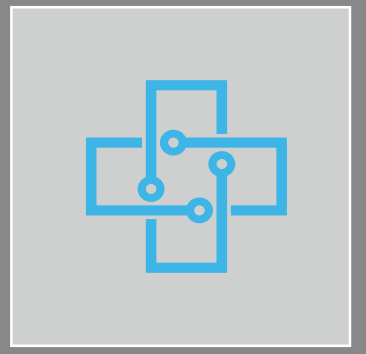
All three

- Reduce/ eliminate cravings
- Blunt/block effects of illicit opioids
- Support long term recover



Methadone & Buprenorphine

- Reduce/eliminate withdrawal symptoms

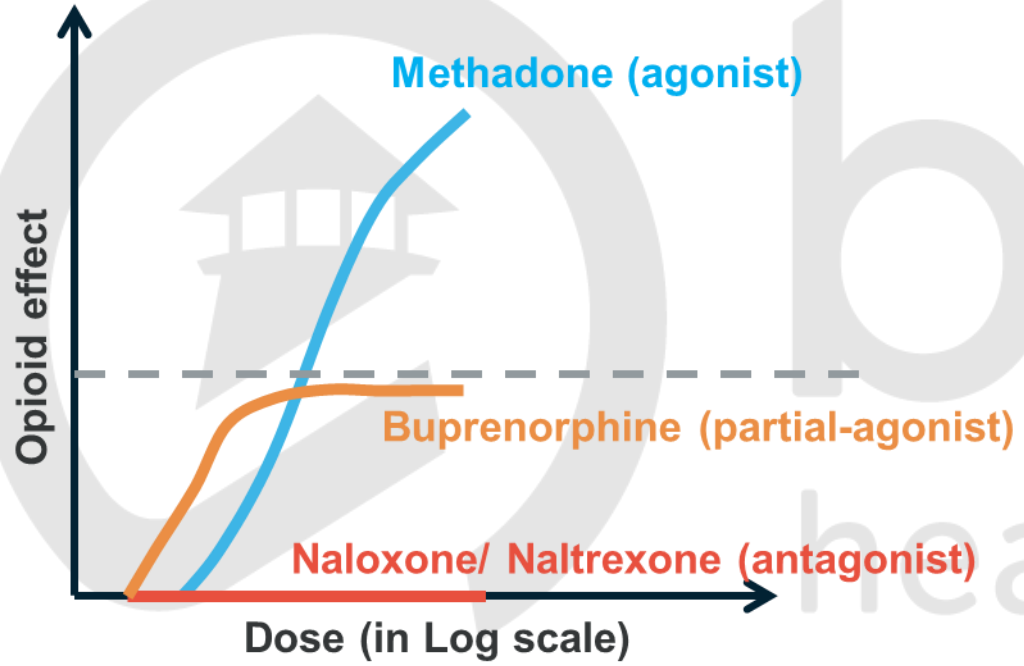


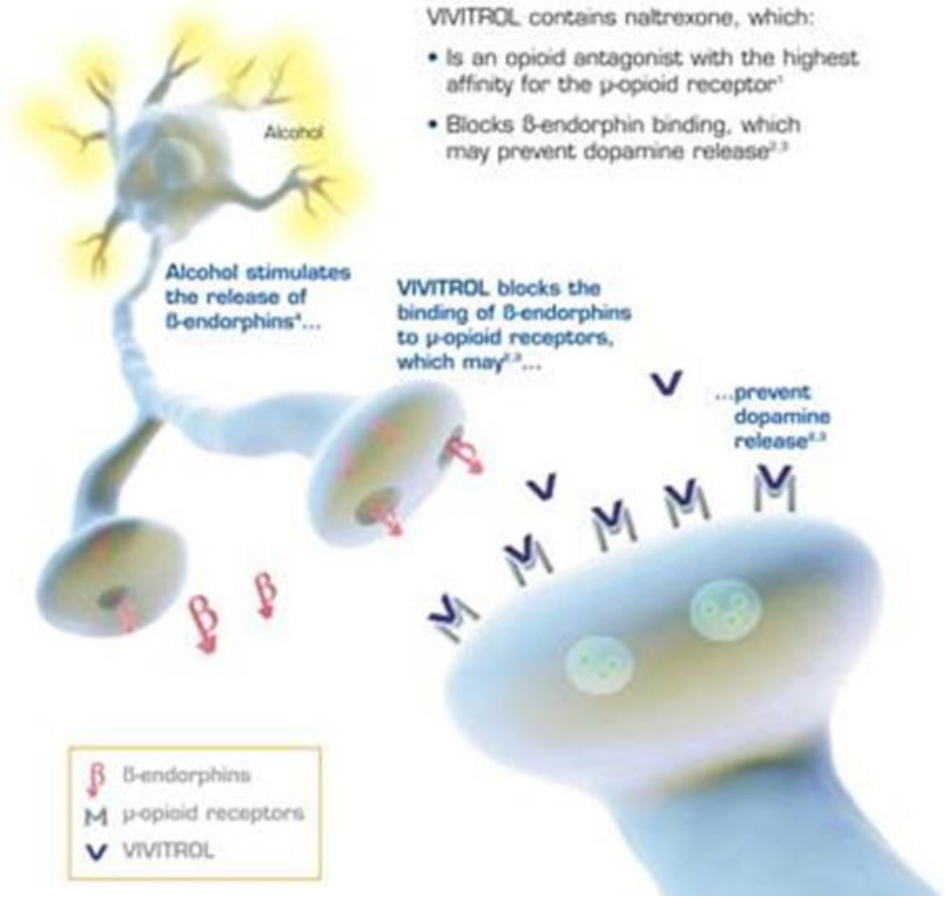
NOT trading one addiction for another

- Physical dependence vs. addiction

Opioid Agonists and Antagonist

Conceptual representation of opioid effect according to dose for agonist, partial-agonist and antagonist





Modified from: Center for Substance Abuse Treatment. Clinical Guidelines for the Use of Buprenorphine in the Treatment of Opioid Addiction. Treatment Improvement Protocol (TIP) Series 40. DHHS Publication No. (SMA) 04-3939. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2004.

Methadone

What is it	How does it work	Potential benefits	Side effects	Regulations
Long-acting opioid medication	Opioid agonist	Blocks the effects of an opioid high	Constipation, sleepiness and sweating	Strict regulations
Orally once a day	Attaches to opioid receptors in the brain where heroin and other opioids attach	Eliminates withdrawal and cravings to use and lowers the risk of relapse, overdose and death	Respiratory depression and cardiac effects; increased risk of OD with alcohol, benzos, and street drugs	Only available at certified OTPs

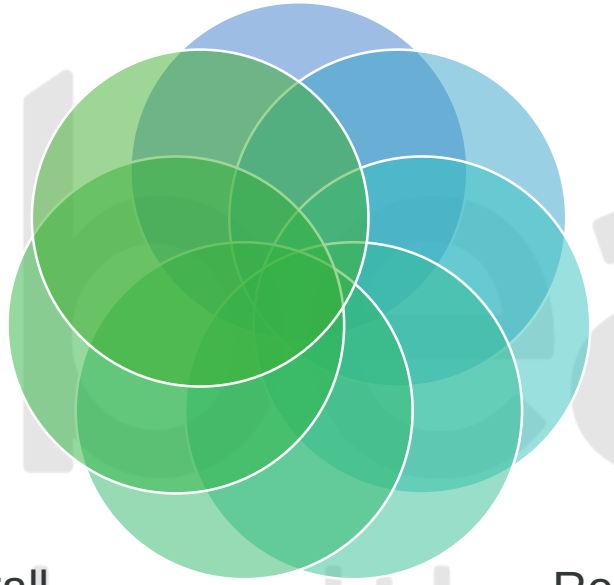
Buprenorphine

What is it	How does it work	Potential Benefits	Side Effects	Regulations
Long-acting opioid medication	Partial agonist	Blocks the effects of an opioid high	Potential for precipitated withdrawal at induction	Waiver required outside OTPs
Sublingual or buccal once a day, subcutaneous injection once a month, or subdermal implant every six months	It attaches to opioid receptors, ceiling effect	Eliminates withdrawal and cravings to use and lowers the risk of relapse, overdose and death	Constipation, nausea and headache. Respiratory depression, particularly if combined with alcohol, benzos, and street drugs	If more than 30 patients, need for training

Naltrexone

What is it	How does it work	Potential Benefits	Side Effects	Regulations
Non-opioid medication	Opioid antagonist	Decreases cravings and blocks effects of opioids	Precipitated withdrawal if taken too soon after last use	Only requires a prescription
Orally once a day or intramuscular injection once a month	It blunts the pleasurable effects of opioids and alcohol	No abuse potential, no withdrawal symptoms when the medication is stopped	Opioid-free period prior initiation (7-10 days minimum); nausea, liver toxicity; vulnerability to overdose with relapse	

MOUD Risks/Benefits



pcssnow.org/resource/detoxification-followed-complete-abstinence

MOUD Risks/Benefits

RISKS

- Potential medical risks (medical comorbidities, drug-drug interactions)
- Abuse potential
- Diversion
- OD risks (methadone vs. buprenorphine vs. naltrexone)

Chapter

03

“We help people live their lives to their fullest potential.”

Our Commitment

Medications for Opioid Use Disorder

Provider Training

September 2021

Initiatives to support adoption of MOUD

Promotion of best practices

- Leveraging data to identify needs and gaps in system of care
- Growing network of providers delivering quality SUD treatment inclusive of MOUD
- Supporting providers through educational activities such as webinars and Project ECHO
- Implementing innovative programs to promote adoption of best practices such as MOUD induction on inpatient units, MOUD induction in EDs, promotion of naloxone

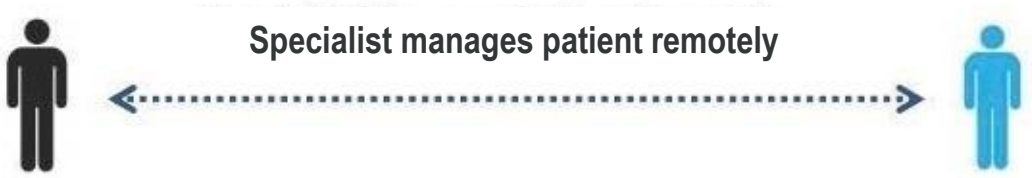
Extension for Community Health Outcomes (ECHO)

- Project ECHO® is a **Community based Public Healthcare initiative** that facilitates treatment of common yet complex diseases in under-served and rural areas developed by Dr. Sanjeev Arora at University of New Mexico
- The **goals of Project ECHO** are two-fold:
  - Develop capacity to **safely and effectively treat complex diseases** in rural and underserved locations
  - **Monitor outcomes centrally** to assess effectiveness of the program
- In the program's first year in CT, **providers increased their MOUD prescriptions by 51%.**

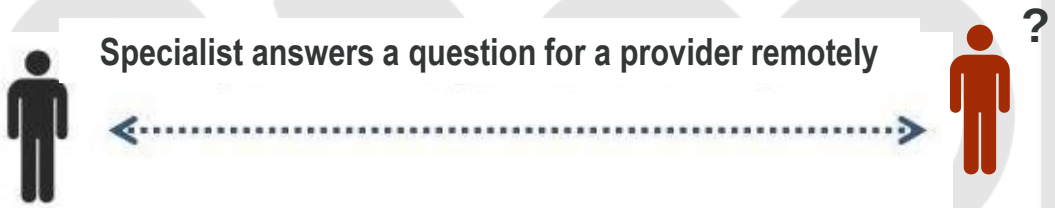
https://hsc.unm.edu/echo/become-a-partner/#findanexistingecho

Project ECHO's tele-mentoring model

Traditional telemedicine brings specialty care to **one patient**



Traditional case consultation answers questions for **one provider**



Project ECHO's tele-mentoring model increases specialty care competence of **entire teams of community-based providers** through collaborative case discussions, **expanding access to specialty care across entire communities.**

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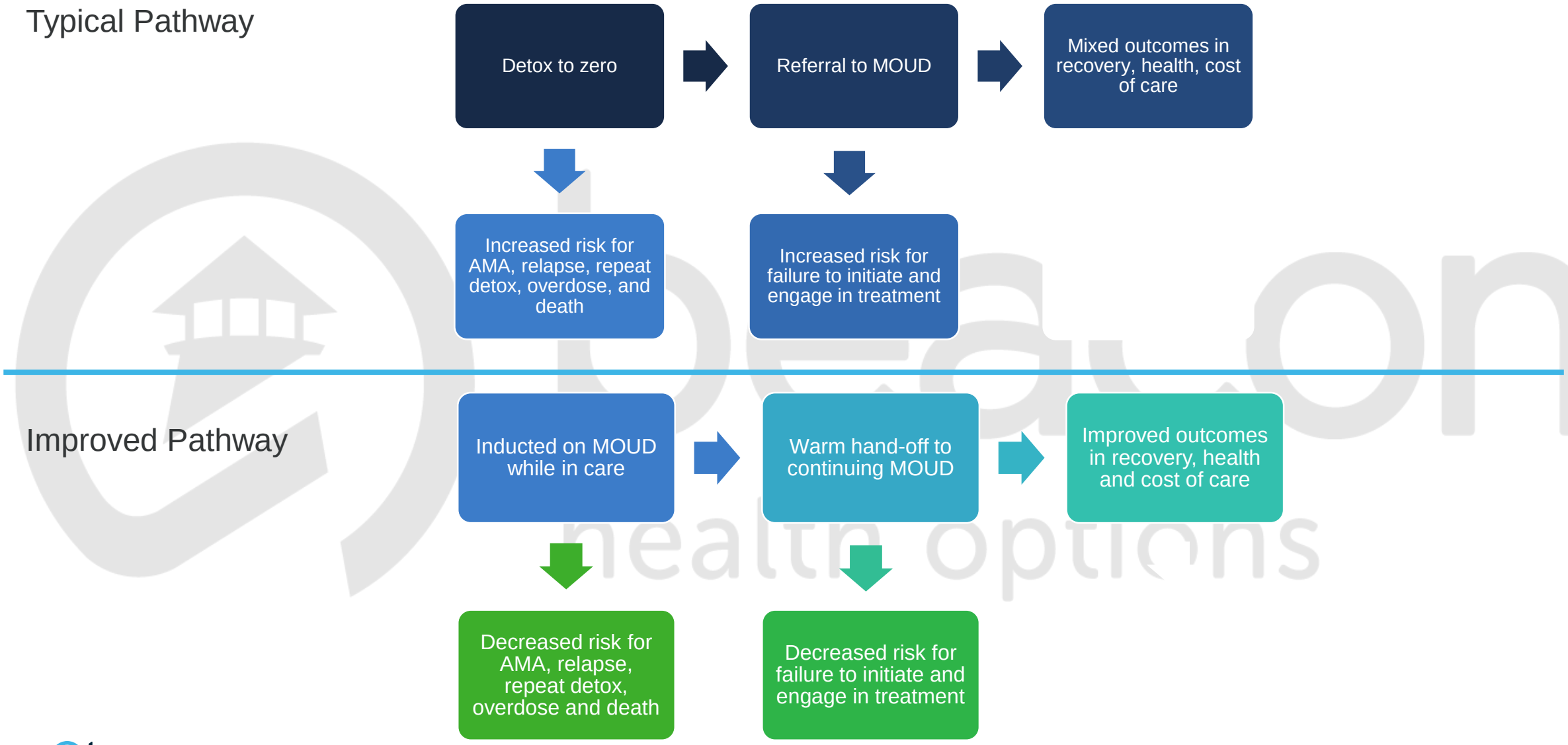
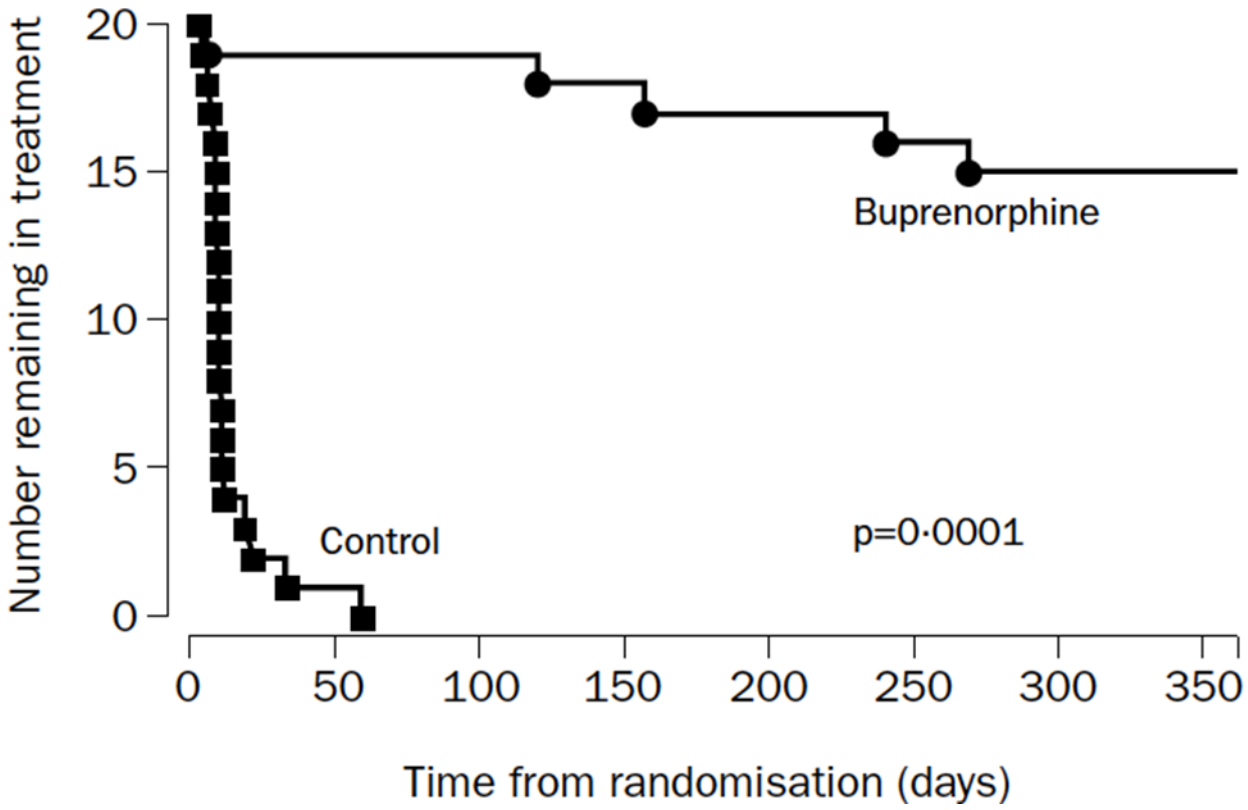
The Changing Pathways Model



Rationale for Changing Pathways



- 1-year retention: 75% (maintenance) vs. 0% (detox)
- Deaths: 4 (detox) vs. 0 (maintenance)

Lancet, 2003; 361:662-8

Three Essential Components:

Frequent and thorough education of individuals with OUD on MOUD and how it can support them in their recovery

Offering individuals with OUD the **option to be inducted on MOUD** during their inpatient stay (instead of being detoxed to zero)

Providing clients inducted onto MOUD with **comprehensive discharge and warm handoffs**

Changing Pathways to Opioid Use Disorder Recovery During Inpatient Care

Sandrine Pirard, MD, PhD, MPH, Beacon Health Options *Carrie Bourdon, LCSW, Beacon Health Options*
Vincent McClain, MD, Hartford Healthcare Rushford Center *Danilo Pangilinan, MD, Intercommunity Inc.*

Background:

- Medication-Assisted Treatment (MAT) and in particular Opioid Maintenance Therapy (OMT) is associated with the most successful outcomes for individuals with Opioid Use Disorder (OUD), but it is grossly underutilized (i).
- Many inpatient programs still use medical detoxification protocols, discharging clients without starting MAT.
- Detoxification is associated with high rates of relapse and the risk of accidental overdose and death is high due to decreased tolerance (ii).
- Moving away from traditional detoxification and instead starting MAT could greatly improve outcomes and reduce health care utilization (iii).

Description of Pilot:

In October 2018, CT BHP launched the *Changing Pathways* (CP) pilot in CT. CP uses a multidisciplinary approach across all staff including nursing, physicians, and clinicians as well as recovery peers to incorporate MAT induction into withdrawal management care. The three essential components of the CP model are:

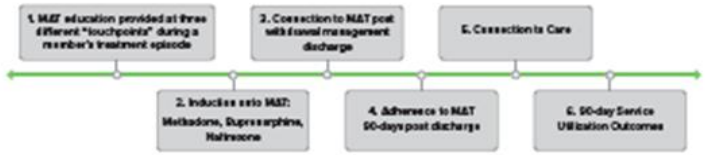
(1) In-depth MAT education

(2) MAT induction if chosen by client

(3) Warm transfer to guarantee continuation of MAT post-discharge

Methods:

Individuals participating in this pilot were Medicaid members with a diagnosis of OUD admitted for withdrawal management at one of the two freestanding inpatient pilot sites, Rushford and InterCommunity. Data were collected at various timepoints to compare outcomes of members being inducted onto MAT vs. detoxed following traditional protocols.



Results:

1. MAT Education

Education about risks and benefits of MAT (methadone, buprenorphine, and naltrexone) vs. treatment without medications was documented for over 85% of members with OUD discharged from the pilot sites between May and October 2019.

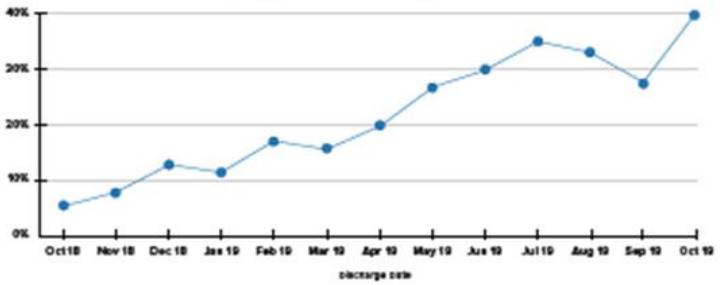
2. MAT Induction and Impact on AMA and Re-admission Rates

During the first year of the initiative, 475 MAT inductions were performed, representing a significant increase in induction rates (over 500% increase for site A and over 300% for site B). Aside from one member who was started on naltrexone, all others were started on OMT (372 on buprenorphine and 102 on methadone).

10/1/2018 – 10/1/2019

INTERCOMMUNITY INC. & RUSHFORD CENTER INC.

Average Percent of Discharges Inducted



Members who were inducted on MAT had significantly better outcomes than members who went through traditional detoxification protocols. Discharges Against Medical Advice (AMA) rates, readmission rates, and connect-to-care rates were greatly improved.

10/1/2018 – 10/1/2019

3. Connection to MAT post discharge

The rate of individuals on MAT in the period after discharge from the two sites increased 52% from Q2 2018 to Q2 2019.

4. MAT Adherence at 90-day post discharge

Nearly 40% of inducted members discharging from pilot sites between 10/01/2018 and 03/31/2019 were medication adherent for the 90 days following discharge (when using 80% of days covered as the threshold for adherence), about 2.5 times the rate of members who were detoxed and later started on MAT.

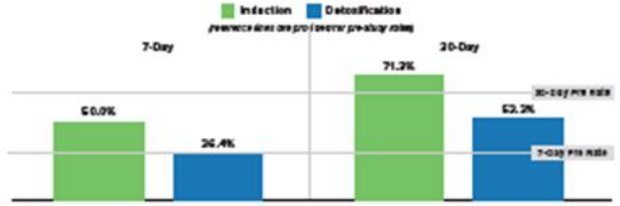
90-Day MAT Medication Adherence: 10/1/2018 – 3/31/2019

5. Connection to Care

MAT induction was associated with higher 7- and 30-day connection to care after discharge.

Prior to the start of the pilot, in September of 2018, discharges from the two pilot sites had a 7-day follow-up rate of 36.4% and a 30-day rate of 63.6%. During the course of the pilot, the connect to care rates for pilot inducted members improved to 50% for 7 days and 71.3% for 30 days. The connection to care rate for pilot non-inducted discharges was 36.4% for 7 days and 53.3% for 30 days.

Pilot Site Induction Rates: 7- and 30-Day Connect to Care



6. 90-Day Service Utilization

For members inducted at the pilot sites with discharge between 10/01/2018 and 03/31/2019, there were statistically significant reductions in withdrawal management episodes and Behavioral Health (BH) Emergency Department (ED) visits, and the latter rate was nearly cut in half after the MAT induction. Additionally, among inducted members, those who met the 80% adherence threshold were significantly more likely to see a decrease in BH ED visits (0.90 visits pre vs. 0.25 visits post) than members who did not met the adherence threshold (079 visits pre vs. 0.51 visits post, ns)

10/1/2018 – 3/31/2019

Behavioral Health ED Episodes	Inpatient Psych Episodes	Total Inpatient Days
0.83 ▸ 0.42	0.04 ▸ 0.05	3.06 ▸ 2.51
avg # of episodes pre ▸ avg # of episodes post	avg # of episodes pre ▸ avg # of episodes post	avg days pre ▸ avg days post
Medical ED Episodes	**Inpatient Medical Episodes**	**Withdrawal Management Episodes**
0.42 ▸ 0.36	0.05 ▸ 0.04	0.68 ▸ 0.37
avg # of episodes pre ▸ avg # of episodes post	avg # of episodes pre ▸ avg # of episodes post	avg # of episodes pre ▸ avg # of episodes post

Members who were not inducted also had a significant reduction in BH ED visits (0.69 visits pre vs. 0.59 visits post). However, they showed a significant increase in total inpatient days (2.85 days pre vs. 3.60 days post) and no significant change in withdrawal management episodes (0.66 episodes pre vs. 0.69 visits post).

Conclusion:

Overall, CT BHP CP represents a promising, person-centered approach to supporting recovery for individuals with OUD.

References:

(i) Clark, Robin E., et al. "Risk Factors for Relapse and Higher Costs Among Medicaid Members with Opioid Dependence or Abuse: Opioid Agonists, Comorbidities, and Treatment History." Journal of Substance Abuse Treatment, 2018, 87: 70-80.

(ii) Mattson, Mary E., et al. "Impact of Medication-Assisted Treatment for Opioid Addiction on Medicaid Expenditures and Health Services Utilization rates in Vermont." Journal of Substance Abuse Treatment, 2018, 87: 8-14.

(iii) Gibbs, Johan, et al. "5 year retention and social function after buprenorphine-assisted relapse prevention treatment for heroin dependence in Sweden: a randomised, placebo-controlled trial." Lancet, 2003, 361: 662-68.

MOUD Induction in Inpatient Settings and Medication Adherence

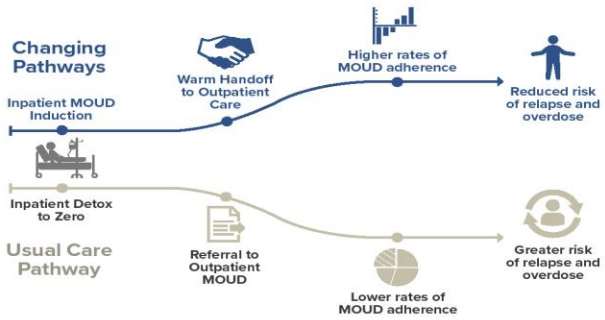
Beacon Health Options

Krista R. Noam, Ph.D. | Carrie Bourdon, LCSW | Sandrine Pirard, MD, Ph.D., MPH

INTRO: Medications for Opioid Use Disorder (MOUD) continue to be under-utilized.

Many inpatient programs still use medical detoxification protocols, discharging clients without starting MOUD.

METHODS: The *Changing Pathways* program was designed to induct adults with Medicaid on MOUD and increase their MOUD utilization.



Medicaid claims were analyzed for adults with an OUD diagnosis who were discharged from a pilot withdrawal management facility (10/1/2018 - 3/31/2020) and had > 90 days of continuous enrollment pre- and post-hospitalization.

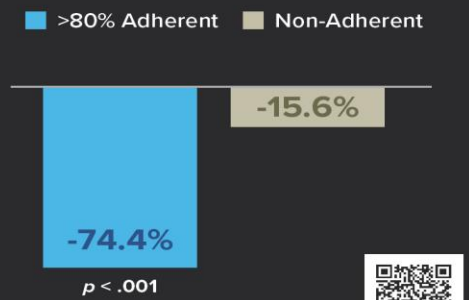
Adherence = $\frac{\text{\# of days covered by MOUD post 90 days}}{\text{\# of days eligible for adherence post 90 days}}$

MOUD medications: methadone, buprenorphine, and naltrexone.

Inpatient MOUD induction increases MOUD adherence, which reduces opioid overdoses.

Percent of Patients with > 80% MOUD Adherence during 90 Days Post-Hospitalization

Percent Change in Opioid Overdose from 90 Days Pre-Hospitalization to 90 Days Post-Hospitalization

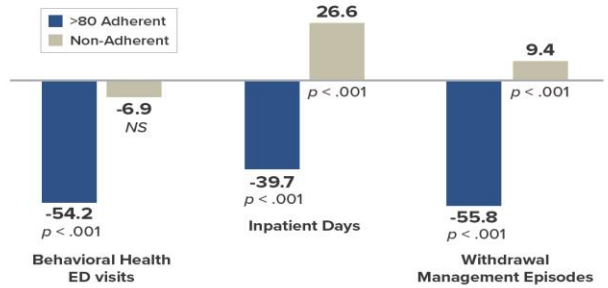


RESULTS: Of the 3,143 patients admitted for withdrawal management (73.5% male, 47.4% White, 22.6% Hispanic), 733 were inducted on MOUD (23.3%) and 2,410 were not inducted (76.7%).

MOUD adherent individuals saw a greater drop in opioid overdose in the post- period (from 8.2% to 2.1%) compared to non-adherent members (from 7.7% to 6.5%).

MOUD adherent adults also saw a significant decrease in their average number of BH ED visits (from 0.7 to 0.3), average number of inpatient days (2.4 to 1.4), and in the mean number of withdrawal management episodes (0.5 to 0.2).

Percent Change in Service Use 90 Days Pre and 90 Days Post Hospitalization



CONCLUSIONS: MOUD induction during inpatient care is associated with higher likelihood of post-discharge adherence, which in turn is associated with reduced service utilization and opioid overdose. Various implementation supports, such as peer support services, are crucial to success.

Additional Authors

Timothy Schmutte, Psy.D. (Yale School of Medicine)
Robert Plant, Ph.D. (Beacon Health Options)

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Chapter

04

“We help people live their lives to their fullest potential.”

Our Commitment

Medications for Opioid Use Disorder

Provider Training

September 2021

Resources

Resources for Finding Treatment Providers

- NIAAA Alcohol Treatment Navigator: https://alcoholtreatment.niaaa.nih.gov/
- ATLAS Treatment Locator: https://www.treatmentatlas.org/
- SAMHSA MAT: https://www.samhsa.gov/medication-assisted-treatment
- SAMHSA Buprenorphine Treatment Practitioner Locator: https://www.samhsa.gov/medication-assisted-treatment/physician-program-data/treatment-physician-locator
- SAMHSA Behavioral Health Treatment Locator: https://www.findtreatment.samhsa.gov/

Clinical Tools

- https://pcssnow.org/resources/clinical-tools/:
  - Patient/family information
  - Intake
  - Treatment Agreements
  - Induction
  - Drug accountability forms
  - Ongoing Treatment
  - How to prepare for DEA inspection

Clinical Tools

- SUD & COVID:
  - COVID-19 Coronavirus (asam.org)
- ED Buprenorphine Induction:
  - ED-Initiated Buprenorphine < ED-Initiated Buprenorphine (yale.edu)
  - BUP Initiation on the App Store (apple.com)
  - Buprenorphine Initiation app - Apps on Google Play
  - Emergency Department Initiated Buprenorphine For Opioid Use Disorder – MDCalc

Questions & Answers

References

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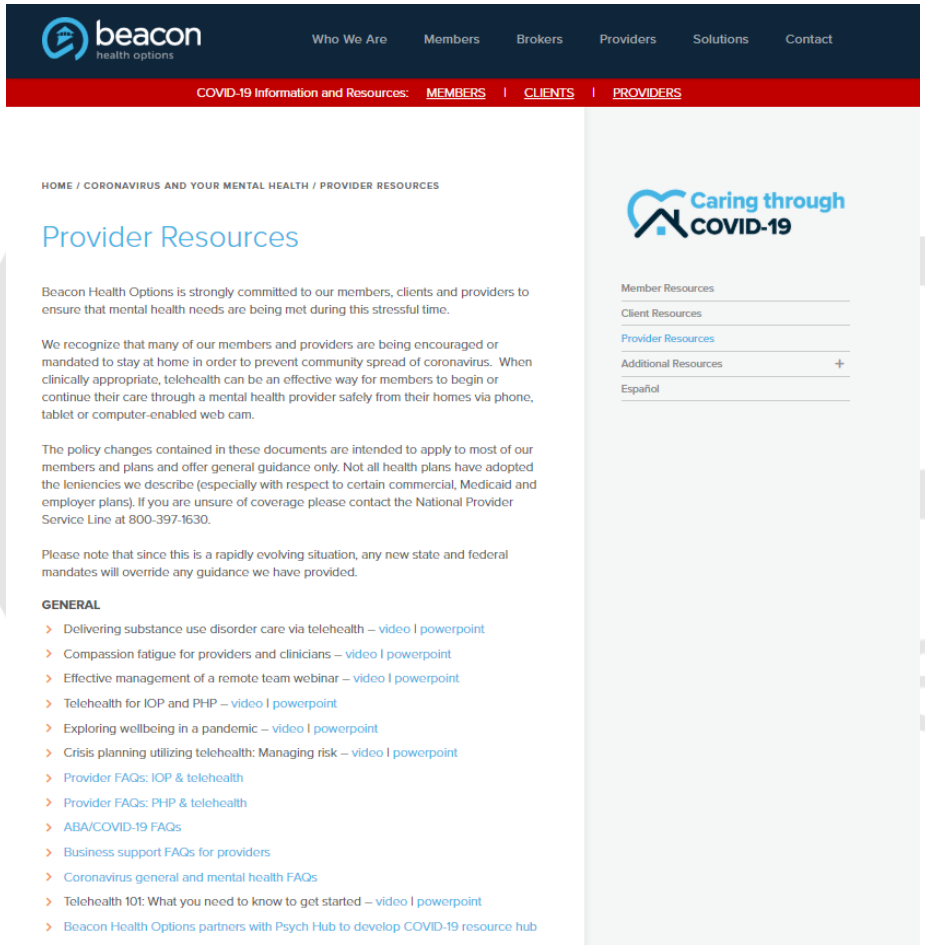
6. Volkow et al. (2001). Loss of dopamine transporters in methamphetamine abusers recovers with protracted abstinence. The Journal of Neuroscience 21(23):9414-9418
7. Clark et al. (2015). Risk factors for relapse and higher costs among Medicaid members with opioid dependence or abuse: opioid Agonists, comorbidies, and treatment history. J Subst Abuse Treat. 57: 75–80
8. Kakko et al. (2003). 1-year retention and social function after buprenorphine-assisted relapse prevention treatment for heroin dependence in Sweden: a randomized, placebo-controlled trial. Lancet 361:662-8
9. Strang et al. (2003). Loss of tolerance and overdose mortality after inpatient opiate detoxification: follow up study. BMJ 326:950-60

Refer to Beacon's COVID-19 webpage for the most up-to-date information



[Beacon COVID-19 provider resources & webinars LINK]

Thank You

Caring through COVID-19

Thank you.