Addressing Substance Use Disorders (SUDs) as a Strategy to End the HIV Epidemic

Insights from the Field and How to Access TA and Training
Funded by the Ending the HIV Epidemic Initiative

Thursday, February 25, 2021

1:00-2:30 pm ET – 12:00-1:30 pm CT – 11:00 am -12:30 pm MT – 10:00-11:30 am PT

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Who We Are

Strengthen & support implementation of jurisdiction EHE Plans to contribute to achievement of reduction in new reported HIV cases by 75% by 2025

Tip: Get TAP-in TA and Training by Contacting TAP-in@caiglobal.org

Cooperative Agreement
Award # U69HA33964

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Objectives, Agenda & Panel

Objectives

- Review substance use disorders (SUDs) that have the most negative impact on EHE-related HIV treatment outcomes

- Provide an overview of evidence-based interventions to address SUDs for people with HIV

- Identify technical assistance (TA) needs and access TAP-in, and other federal TA resources to support implementation of local and regional plans.

Agenda & Panel

Moderator	Tom Donohoe, UCLA Family Medicine TAP-in
SUDs & the HIV Care Continuum	Bryan Garner, PhD, Senior Implementation Research Scientist, RTI International
Evidence-Based Interventions	Steve Shoptaw, PhD, Professor of Family Medicine and Psychiatry and Director of CBAM and CHIPTS at UCLA
EHE Regional Approach	Alessandra Ross, MPH, Chief, Harm Reduction Unit, California Dept. of Public Health Office of AIDS
Addiction Training/ATTC Network	Renata Henry, M.ED, Director, Central East ATTC
TAP-in TA/Training	Will Murphy, Project Director, CAI TAP-in

Case: DeWayne

Last month DeWayne missed two HIV medical appointments, but finally made a third. After being undetectable for three years, DeWayne's lab work showed he had both a detectable viral load and a STI. When DeWayne's HIV case manager followed up with him via a telehealth visit, DeWayne asked her if he could get a referral to a substance use treatment program. He said he had been clean and sober for three years but during the isolation of COVID-19 he felt really depressed. He shared "I seem to have returned to my old destructive ways. It all happened quicker than I could have imagined."

Poll Question

What do you feel?

In your jurisdiction, which substance do you feel is most likely to be associated with DeWayne's situation?

1) Alcohol

2) Opioids

3) Methamphetamine

4) Another substance

Who is on the webinar today?

Where do you work?

1. **Region 1** (CT, ME, MA, NH, RI, VT)

2. **Region 2** (NJ, NY, PR, US Virgin Islands)

3. **Region 3** (DE, DC, MD, PA, VA, WV)

4. **Region 4** (AL, FL, GA, KY, MS, NC, SC, TN)

5. **Region 5** (IL, IN, MI, MN, OH, WI)

6. **Region 6** (AR, LA, NM, OK, TX)

7. **Region 7** (IA, KS, MO, NE)

8. **Region 8** (CO, MT, ND, SD, UT, WY)

9. **Region 9** (AZ, CA, HI, NV, Pacific Jurisdictions)

10. **Region 10** (AK, ID, OR, WA)

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Poll Question

What's your #1 HIV-related work role?

What's your #1 HIV-related work role? (choose one only)?

1. Health department

2. Planning council/planning body member

3. Clinician

4. Case manager

5. Substance use treatment provider

6. Social worker

7. Administrator

8. Federal government staff (e.g., HRSA)

9. Other behavioral health professional

10. Other (write into chat)

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SUDs and the HIV Care Continuum
## Bryan Garner, PhD

The *population-level* negative impact of different substance use disorders among people with HIV

Bryan R. Garner, PhD
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Research Triangle Park, NC 27709-2194
Phone: (919) 597-5159 - Email: bgarner@rti.org

FUNDED BY THE NATIONAL INSTITUTE ON DRUG ABUSE

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A Different Way to Look at SUDs

Prevalence Rate	✖	Individual-level Negative Impact	=	Population-level Negative Impact
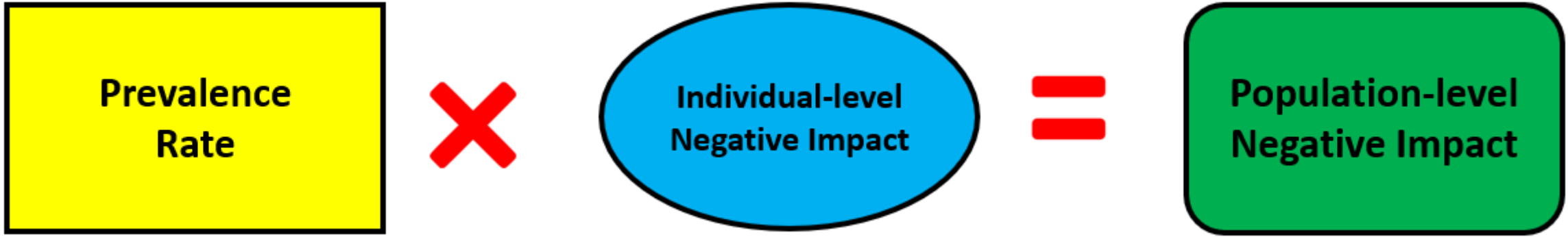
Study Question: How would you rank order the following five (use disorders)?

- Alcohol
- Cannabis
- Cocaine
- Methamphetamine
- Opioid

A Different Way to Look at SUDs
First, Consider Prevalence

Prevalence Rate

1. Data limited to individuals already linked to care, yet the likelihood of linkage to HIV care has been shown to be significantly lower for individuals with a SUD.

ORIGINAL PAPER

Prevalence and Predictors of Substance Use Disorders Among HIV Care Enrollees in the United States

Bryan Hartzler[1] · Julia C. Dombrowski[2] · Heidi M. Crane[2] · Joseph J. Eron[3,4] · Elvin H. Geng[5] · W. Christopher Mathews[6] · Kenneth H. Mayer[7,8] · Richard D. Moore[9,10,11] · Michael J. Mugavero[12] · Sonia Napravnik[3] · Benigno Rodriguez[13] · Dennis M. Donovan[1,14]

Abstract Prior efforts to estimate U.S. prevalence of substance use disorders (SUDs) in HIV care have been undermined by caveats common to single-site trials. The current work reports on a cohort of 10,652 HIV-positive adults linked to care at seven sites, with available patient data including geography, demography, and risk factor indices, and with substance-specific SUDs identified via self-report instruments with validated diagnostic thresholds. Generalized estimating equations also tested patient indices as SUD predictors. Findings were: (1) a 48 % SUD prevalence rate (between-site range of 21–71 %), with (2) substance-specific SUD rates of 31 % for marijuana, 19 % alcohol, 13 % methamphetamine, 11 % cocaine, and 4 % opiate; and (3) emergence of younger age and male gender as robust SUD predictors. Findings suggest high rates at which SUDs occur among patients at these urban HIV care sites, detail substance-specific SUD rates, and identify at-risk patient subgroups.

Resumen Los esfuerzos previos para estimar la prevalencia de los trastornos por uso de sustancias (TUS) de Estados Unidos en la atención del VIH han sido socavados por los problemas comunes de la investigación realizada en un solo sitio. Este documento informa sobre un estudio de una cohorte de 10,652 adultos con VIH que reciben atención en siete sitios, con los datos del paciente disponibles sobre la geografía, la demografía y los índices de factores de riesgo y con trastornos por uso de sustancias específicas identificadas con los instrumentos de autoinforme con umbrales de diagnóstico que han sido validado. Ecuaciones de estimación generalizadas también evaluaron los índices de pacientes como predictores de TUS. Los resultados fueron: 1) una tasa de prevalencia de

"Findings were: (1) a 48 % SUD prevalence rate (between-site range of 21–71 %)"

Cannabis = 31%

Alcohol = 19%

Methamphetamine = 13%

Cocaine = 11%

Opioid = 4%

2. Study policy was to not conduct assessments on individuals who appeared under the influence of a substance.

"Findings were: (1) a 48 % SUD prevalence rate (between-site range of 21–71 %)"

Cannabis = 31%

Alcohol = 19%

Methamphetamine = 13%

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CrossMark

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HIV care sites, detail substance-specific SUD rates, and identify at-risk patient subgroups.

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3. Estimates were based on data collected between 2007 and 2014 and therefore may not be representative of current SUD prevalence rates among people with HIV.

"Findings were: (1) a 48 % SUD prevalence rate (between-site range of 21–71 %)"

Cannabis = 31%

Alcohol = 19%

Methamphetamine = 13%
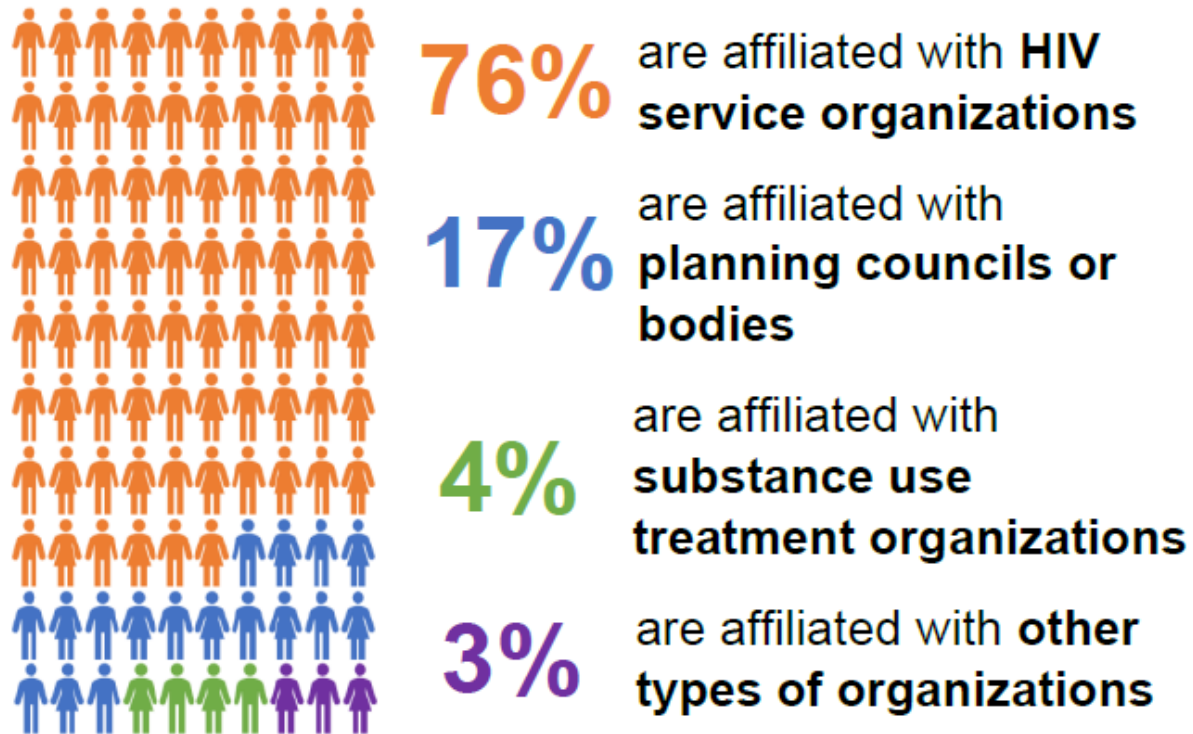
Cocaine = 11%

Opioid = 4%

A Different Way to Look at SUDs

Our Estimate of Prevalence Rate

Prevalence Rate

Substance-focused interactive national survey (May 2019)
690 respondents (80% of those invited) participated

CT: 37
DE: 3
HI: 1
MA: 9
MD: 13
NJ: 17
RI: 1
PR: 1

Number of respondents
0   1   100

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A full description of this chart can be found at the end of this presentation after the Evaluation slide under the title: Slide 20 - Substance-focused interactive national survey

Survey: Types of Participating Organizations and Individuals

76% are affiliated with **HIV service organizations**

17% are affiliated with **planning councils or bodies**

4% are affiliated with **substance use treatment organizations**

3% are affiliated with **other types of organizations**

A full description of this chart can be found at the end of this presentation after the Evaluation slide under the title: Slide 21 - Survey: Types of Participating Organizations and Individuals
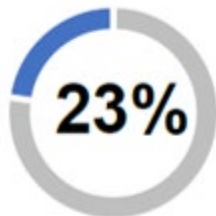
Survey: Respondent Demographics
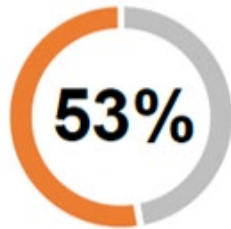
53% Identify as **Female**

38% Identify as **Black or African American**

23% Identify as **Hispanic or Latino**

What constitutes a substance use disorder (SUD)?

During the past 12 months, which substance(s) (if any) have you had 2+ of the following (i.e., would answer yes).

1. You experienced cravings for (a strong need or urge to use)?
2. You spent a lot of time obtaining, using, being sick from, or getting over the aftereffects from?
3. You had times when you ended up using the substance in a larger amount, more often, or for longer than you intended?
4. You had to use much more of it than you once did to get the effect you want, or found that your usual amount had much less effect than before?
5. Caused you to give up, cut back on, or have problems with activities that were important or interesting to you, or gave you pleasure, in order to use the substance?

Survey: What constitutes a substance use disorder (SUD)?

During the past 12 months, which substance(s) (if any) have you had 2+ of the following (i.e., would answer yes).

6. You tried to cut down, reduce, control, or stop using but couldn't?
7. You more than once gotten into situations while or after using that increased your chances of getting hurt (such as driving, swimming, using machinery, walking in a dangerous area, having unsafe sex, or smoking in bed)?
8. You found that using the substance – or being sick from using the substance – often interfered with taking care of your home or family, caused job trouble, or caused school problems?
9. You continued to use even though it was causing trouble with your family or friends?
10. You continued to use even though it was making you feel depressed or anxious, making another health problem worse, or had caused a memory blackout?
11. You had withdrawal symptoms when the effects were wearing off (such as trouble sleeping, shakiness, irritability, anxiety, depression, restlessness, nausea, sweating, a racing heart, a seizure, or sensed things that were not there) – or used any alcohol or other drugs to avoid withdrawal symptoms?

Two Studies: Perceived Prevalence Rate of Use Disorders

Use Disorder	Region								Stakeholder Perspective						Overall	
	Northeast		South		Midwest		West		Clients with HIV		ASO Staff		HPC Member			
	Mean	(SE)	Mean	(SE)	Mean	(SE)	Mean	(SE)	Mean	(SE)	Mean	(SE)	Mean	(SE)	Mean	(SE)
Alcohol	43.0	(2.03)	44.1	(1.54)	43.2	(1.96)	37.1	(1.56)	42.0	(2.43)	41.8	(1.07)	42.2	(1.92)	41.9[a]	(0.88)
Cannabis	47.0	(2.34)	44.4	(1.74)	42.4	(2.45)	35.7	(2.09)	46.0	(2.70)	40.1	(1.29)	46.6	(2.50)	42.3[a]	(1.06)
Cocaine	31.3	(2.18)	31.1	(1.50)	30.8	(2.26)	19.5	(1.41)	36.0	(2.59)	25.1	(1.02)	31.6	(2.26)	28.1	(0.91)
Methamphetamine	24.2	(2.09)	28.6	(1.45)	35.3	(2.31)	40.8	(1.77)	38.9	(2.52)	29.5	(1.11)	35.5	(2.28)	32.2	(0.95)
Opioid	41.3	(2.47)	32.0	(1.38)	35.4	(2.07)	32.5	(1.82)	36.4	(2.42)	33.3	(1.12)	37.5	(2.27)	34.6	(0.93)

A full description of this chart can be found at the end of this presentation after the Evaluation slide under the title: Slide 25 - Perceived Prevalence Rate of Use Disorders
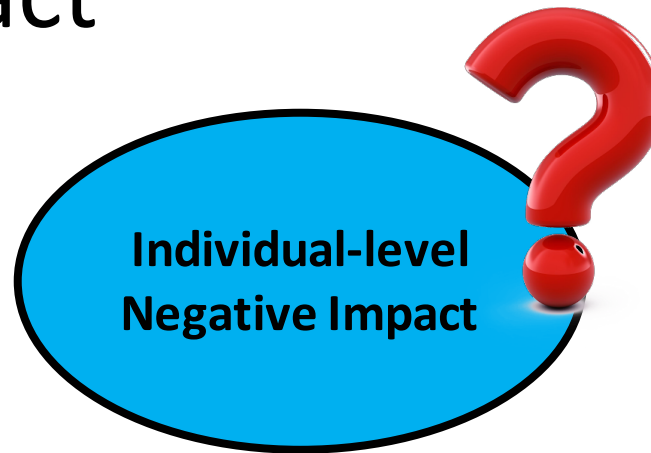
Hartzler et al. (2017)
1. Cannabis Use Disorder = 31%
2. Alcohol Use Disorder = 19%
3. Methamphetamine Use Disorder = 13%
4. Cocaine Use Disorder = 11%
5. Opioid Use Disorder = 4%

Garner et al. (2019)
1. Cannabis Use Disorder = 42.3%
2. Alcohol Use Disorder = 41.9%
3. Opioid Use Disorder = 34.6%
4. Methamphetamine Use Disorder = 32.2%
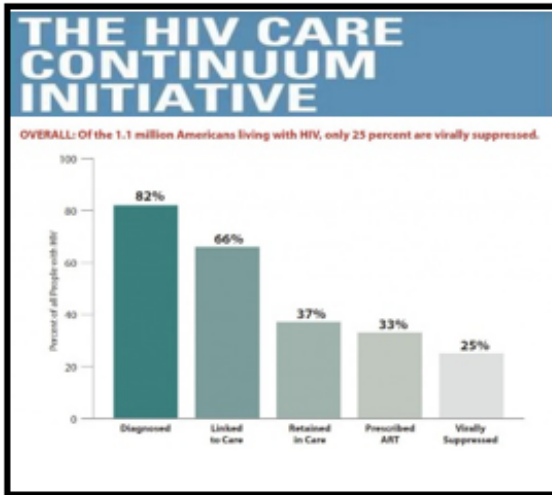5. Cocaine Use Disorder = 28.1%

A Different Way to Look at SUDs

Individual Level Impact

Prevalence Rate ✓

Individual-level Negative Impact ?

Just like not all apples are the same...

...Not all SUDs are the same.

THE HIV CARE CONTINUUM INITIATIVE

OVERALL: Of the 1.1 million Americans living with HIV, only 25 percent are virally suppressed.

82% Diagnosed
66% Linked to Care
37% Retained in Care
33% Prescribed ART
25% Virally Suppressed

A full description of this chart can be found at the end of this presentation after the Evaluation slide under the title: Slide 27 -The HIV Care Continuum Initiative
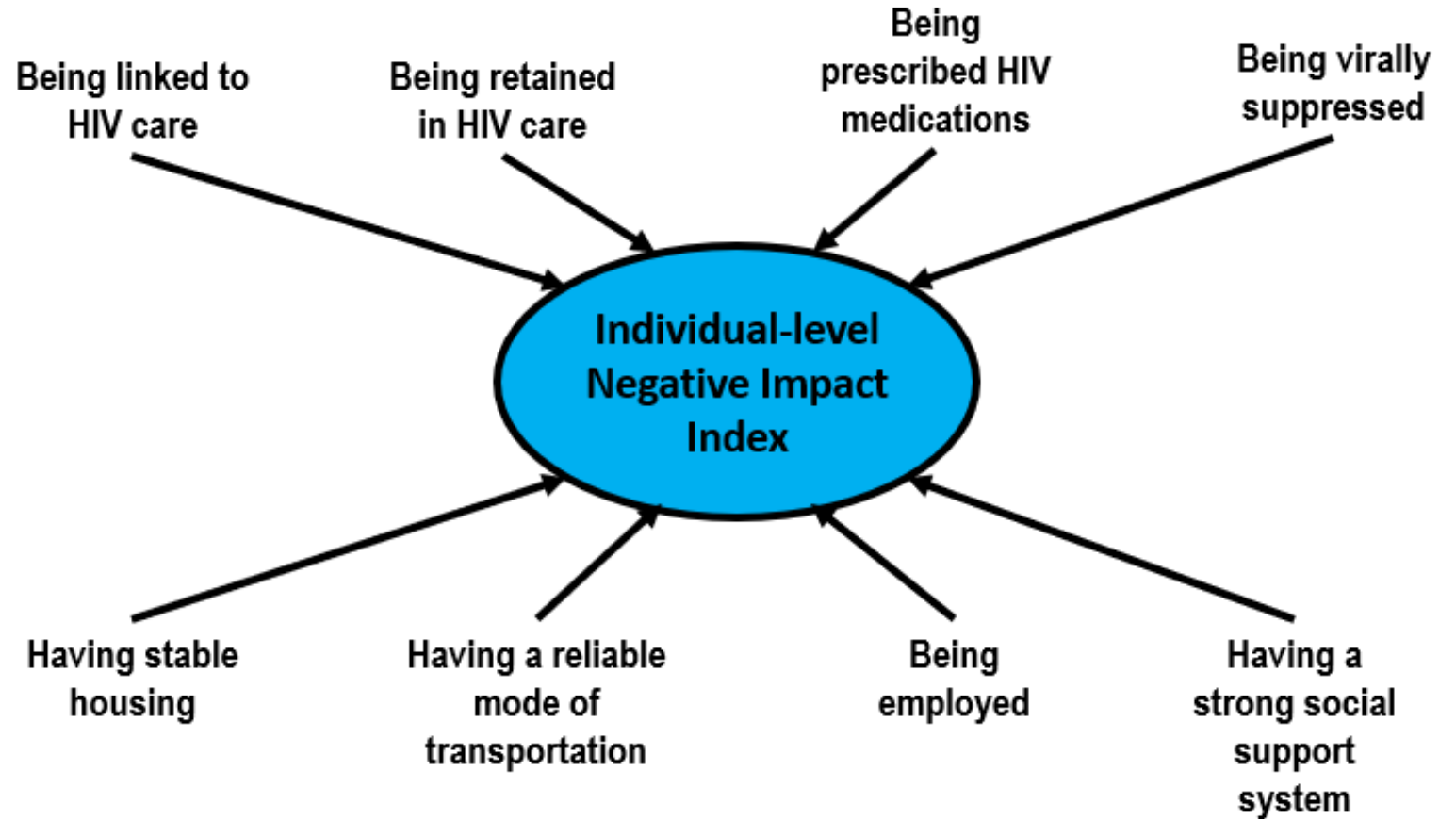
Other important outcomes

- Having stable housing.
- Having a reliable mode of transportation.
- Being employed.
  ...ving a strong social support ...stem.

Being linked to HIV care

Being retained in HIV care

Being prescribed HIV medications

Being virally suppressed

Individual-level Negative Impact Index

Having stable housing

Having a reliable mode of transportation

Being employed

Having a strong social support system

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Example: How Questions Were Asked

Question 2 of 10

For people living with HIV in your area who have an **Alcohol Use Disorder**, to what extent does having an Alcohol Use Disorder have a negative impact on those individuals…

being linked to HIV care?

View the 11 criteria

No Negative Impact At All =1	A Minor Negative Impact =2	A Moderate Negative Impact =3	A Major Negative Impact =4
○	◉	○	○
0 people have selected this answer.	8 people have selected this answer.	4 people have selected this answer.	3 people have selected this answer.

The current number of responses is: 15
The current group average score is: 2.67

Click to Save

Add or Read Comments

Individual-Level Negative Impact Scores

A full description of this chart can be found at the end of this presentation after the Evaluation slide under the title: Slide 29 - Individual-Level Negative Impact Scores

Compare Calculations
Prevalence and Individual-Level Impact

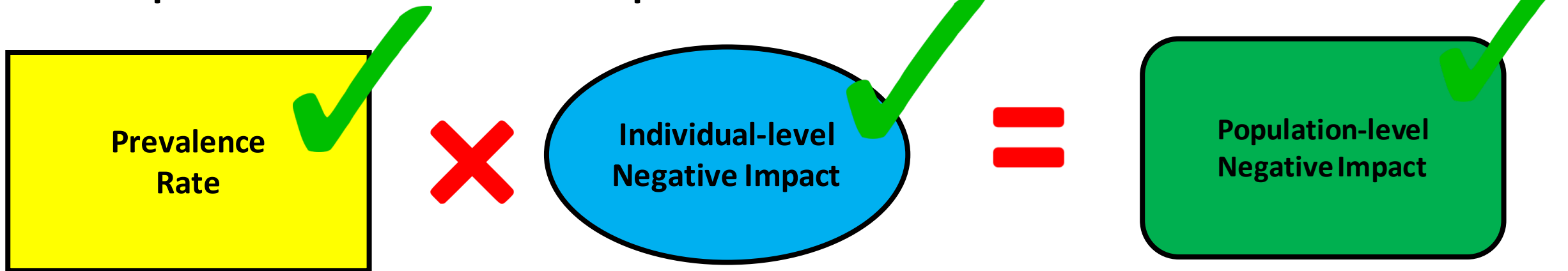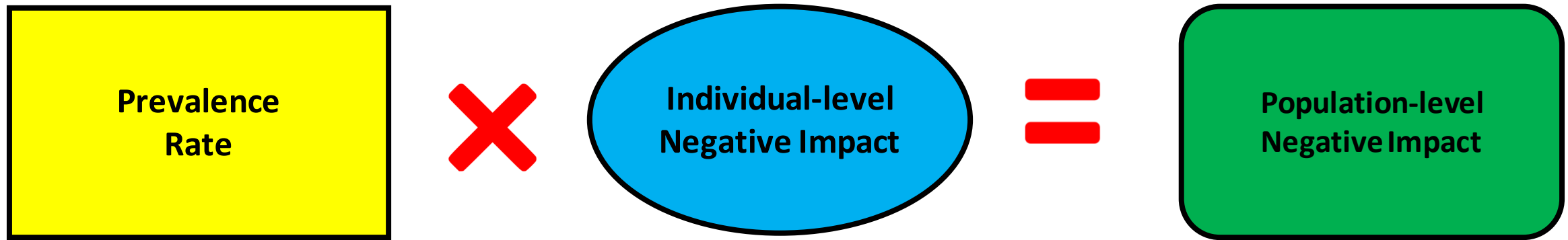| Prevalence Rate ✓ | ✗ | Individual-level Negative Impact ✓ | = | Population-level Negative Impact ❓ |

Garner et al. (2019)

Cannabis = 42.3%

Alcohol = 41.9%

Opioid = 34.6%

Methamphetamine = 32.2%

Cocaine = 28.1%

Garner et al. (2019)

Methamphetamine = 19.4%

Opioid = 17.6%

Cocaine = 16.2%

Alcohol = 15.9%

Cannabis = 8.1%

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A Different Way to Look at SUDs
Population-Level Impact

Prevalence Rate   ✕   **Individual-level Negative Impact**   =   **Population-level Negative Impact**

Garner et al. (2019)
Cannabis = 42.3%
Alcohol = 41.9%
Opioid = 34.6%
Methamphetamine = 32.2%
Cocaine = 28.1%

Garner et al. (2019)
Methamphetamine = 19.4%
Opioid = 17.6%
Cocaine = 16.2%
Alcohol = 15.9%
Cannabis = 8.1%

Garner et al. (2019)
Alcohol = 6.9%
Methamphetamine = 6.5%
Opioid = 6.4%
Cocaine = 5.0%
Cannabis = 3.7%

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Reflect Back: Survey Question

Prevalence Rate ✖ **Individual-level Negative Impact** = **Population-level Negative Impact**

Survey Question: How would you rank order the following five?
- Alcohol
- Cannabis
- Cocaine
- Methamphetamine
- Opioid

Results from Our Project

| Prevalence Rate | ✕ | Individual-level Negative Impact | = | Population-level Negative Impact |
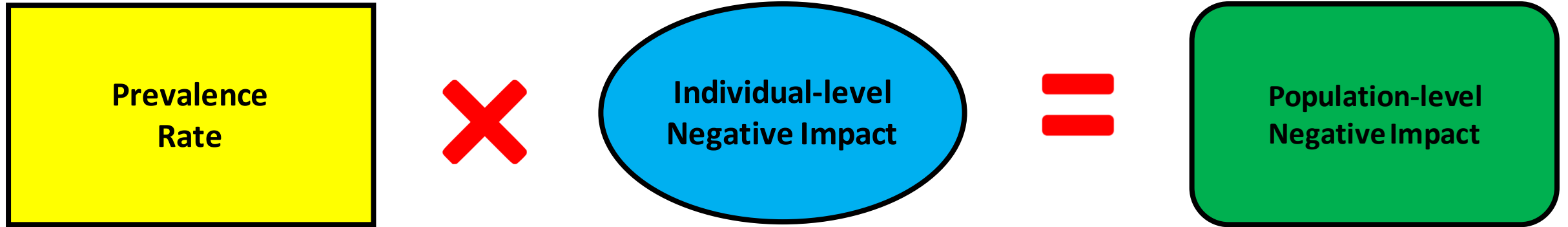
Based on the data from our project, rank order of the five are…

1. Alcohol
2. Methamphetamine
3. Opioid
4. Cocaine
5. Cannabis

THE NEXT QUESTION

What evidence-based treatments are most promising?

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Evidence-Based Treatments
Steve Shoptaw, PhD

Evidence-Based Treatments

- Opioids

- Alcohol

- Methamphetamine

New Twist on Evidence-Based Treatments: 2021

- **COVID-19** - Reports of drug use vary, consistent finding alcohol use increased since start of COVID-19

- **Increased Access** - Telehealth Minimizes Barriers of Social Determinants - Distance interventions from intakes through 12-step groups

- **Integrated Strategies** - "One-Stop Shop" approaches (e.g., Primary Care + ID/STIs + Addiction Treatments)

- **Criminal Justice** - Ensuring treatment from community to custody to community

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Scope of the Problem: Drug Overdoses (6/19 – 6/20)
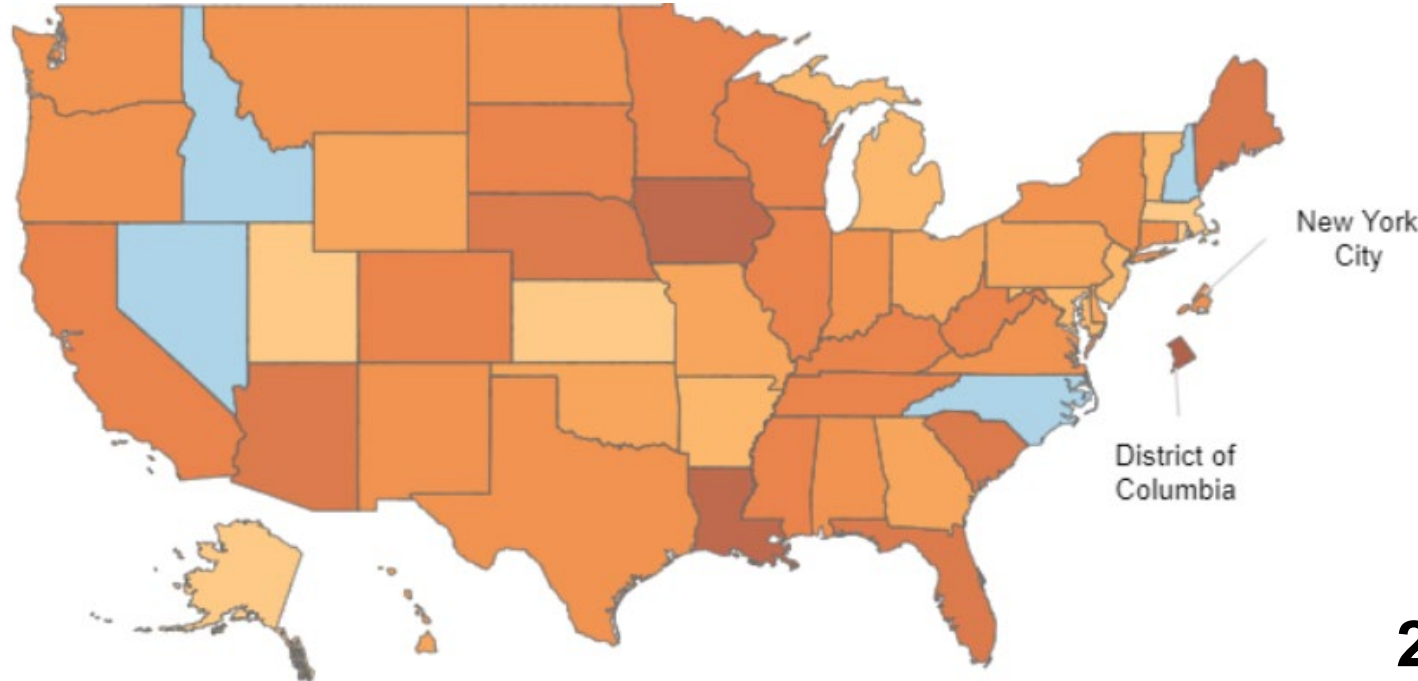
Figure 1b. Percent Change in Predicted 12 Month-ending Count of Drug Overdose Deaths, by Jurisdiction: June 2019 to June 2020

21.3% Increase for U.S.

Legend for Percent Change in Drug Overdose Deaths Between 12-Month Ending Periods
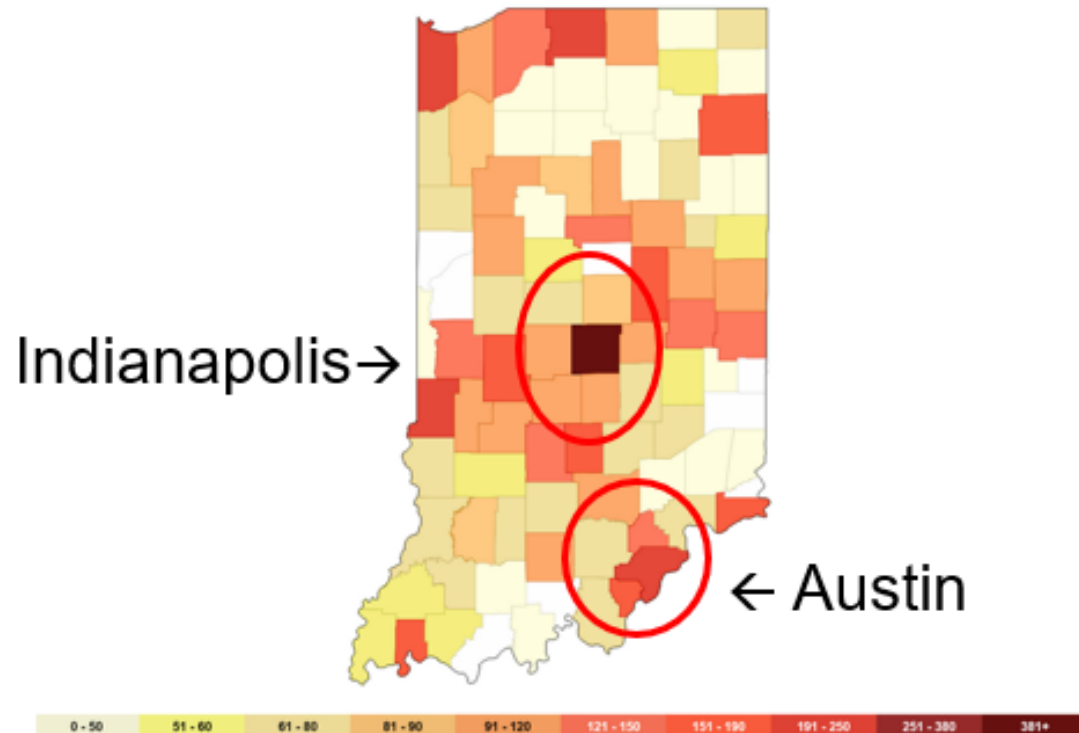
A full description of this chart can be found at the end of this presentation after the Evaluation slide under the title: Slide 37 - Scope of the Problem: Drug Overdoses

https://www.cdc.gov/nchs/nvss/vsrr/drug-overdose-data.htm

The Perfect Storm

Rates of Persons Living with an HIV Diagnosis by County, Indiana, 2014

Indianapolis→

← Austin

0 - 50 51 - 60 61 - 80 81 - 90 91 - 120 121 - 150 151 - 190 191 - 250 251 - 380 381+

A full description of this chart can be found at the end of this presentation after the Evaluation slide under the title: Slide 38 – The Perfect Storm

- Austin is a small town (4,200), rural south-east Indiana

- Oxymorphone (Opana) being prescribed for pain problems

- On a major interstate

- No needle exchange

- Stigma against gay/bisexual men and individuals with addiction exacerbated the issue
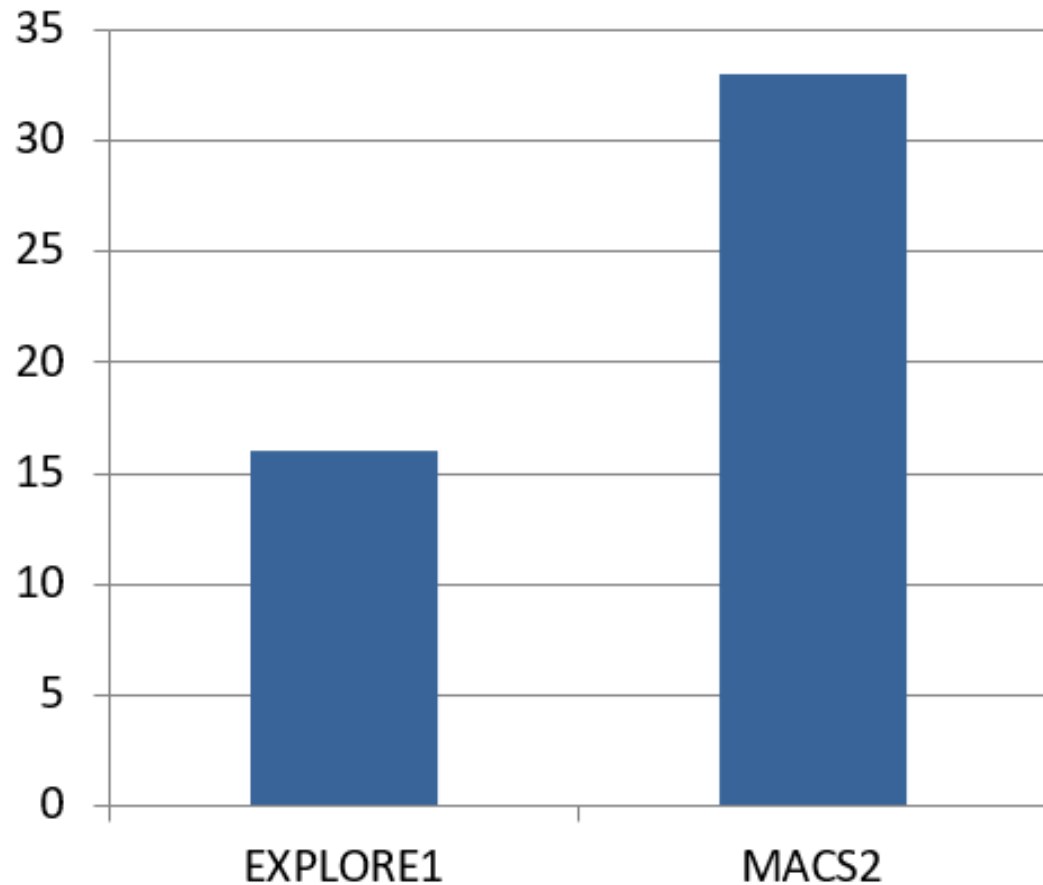
www.aidsvu.org

Surveillance Findings, 2016
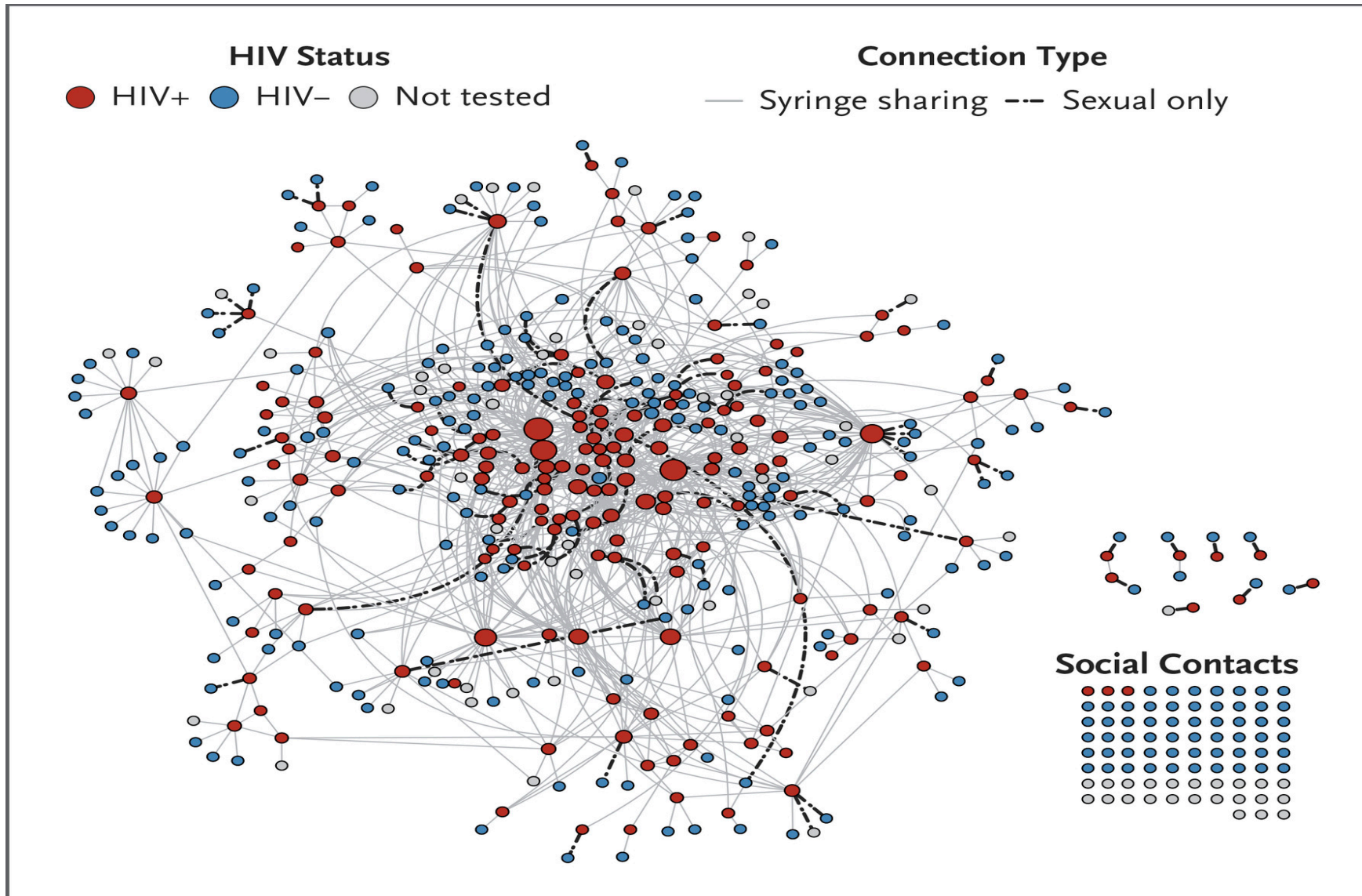
Peters PJ, et al., *N Engl J Med.* 2016, 375:229-39

Methamphetamine Use increases HIV Incidence in MSM

[1] Koblin et al., 2006, *AIDS,* 20: 731-739
[2] Ostrow et al., 2009, *JAIDS,* 51: 349-355

Social Network Size Reduces HIV Incidence in MSM

Variable	Unadjusted HR (95% CI)	Age + Site–Adjusted HR (95% CI)
Site		
Boston, MA (ref)	(Ref)	
New York, NY	1.65 (0.15 to 18.23)	
Washington, DC	3.73 (0.39 to 35.98)	
San Francisco, CA	4.28 (0.48 to 38.27)	
Atlanta, GA	7.42 (0.93 to 59.37)	
Los Angeles, CA	10.44 (1.33 to 81.74)†	
Age at enrollment	0.92 (0.88 to 0.96)†	
In past 6 mo…		
Social network size	1.08 (0.92 to 1.27)	1.09 (0.92 to 1.29)
percent of network providing personal/ emotional support*	0.91 (0.85 to 0.98)†	0.92 (0.85 to 0.99)†
Percent of network providing medical support*	0.93 (0.86 to 1.00)	0.92 (0.85 to 0.99)†
Percent of network providing financial support*	0.95 (0.88 to 1.02)	0.95 (0.88 to 1.02)
Percent of network providing social participation support*	0.91 (0.86 to 0.97)†	0.91 (0.86 to 0.97)†
Percent of network members older than 30 yrs*	0.94 (0.90 to 0.99)†	—

*HR shown refers to 5% increase.
†$P < 0.05$.

Hermanstyne K et al., *JAIDS,* 2018, *78*:163

Infections Reflect Networks
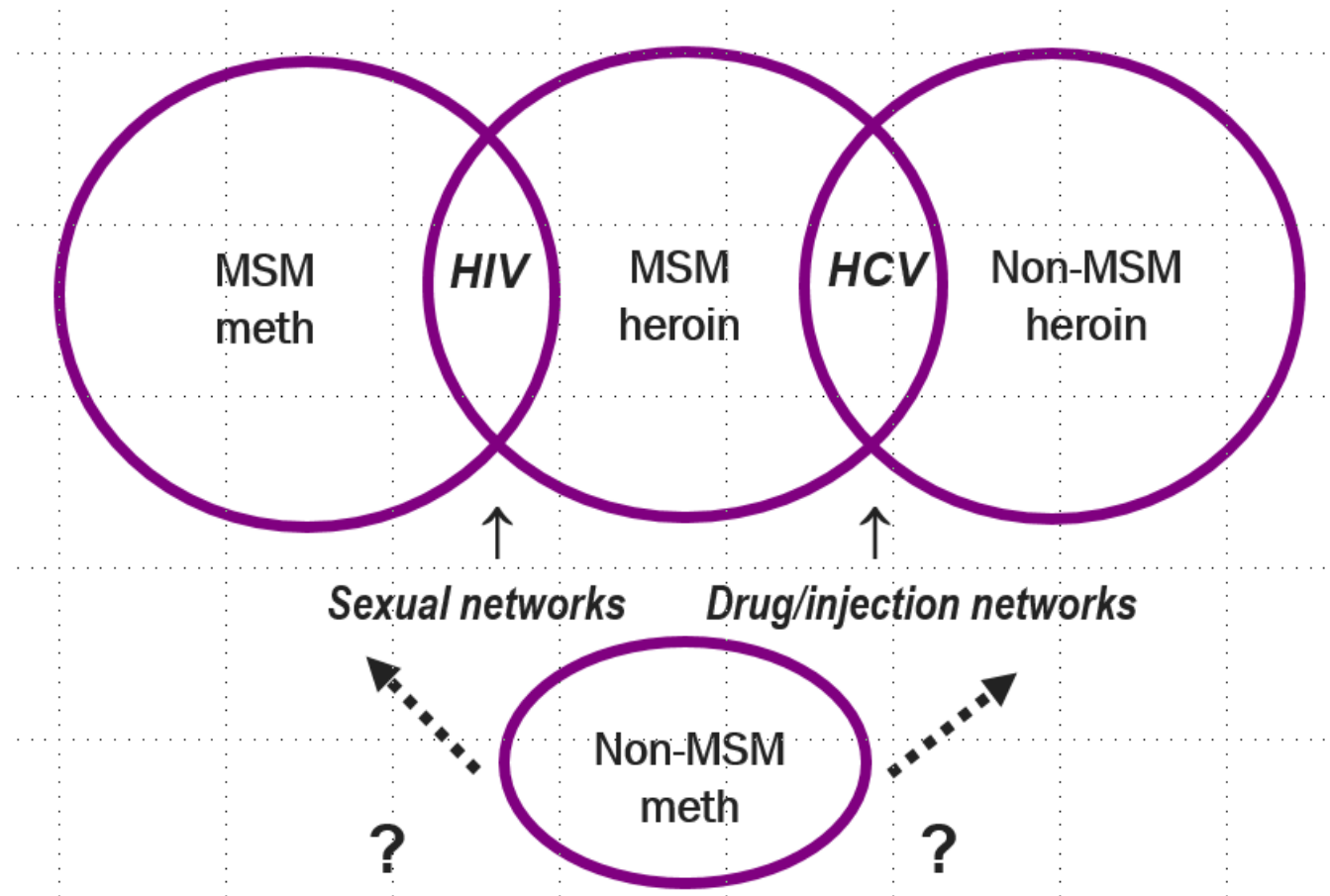
What Would Evidence-Based Treatments Do?

Pharmacological Targets

- Substitution (agonists)
- Block relapse (antagonists)
- Mixed approaches (partial agonists)
- Relieve drug-related symptoms (craving)

Behavior Therapy Targets

- Instill abstinence
- Prevention of relapse
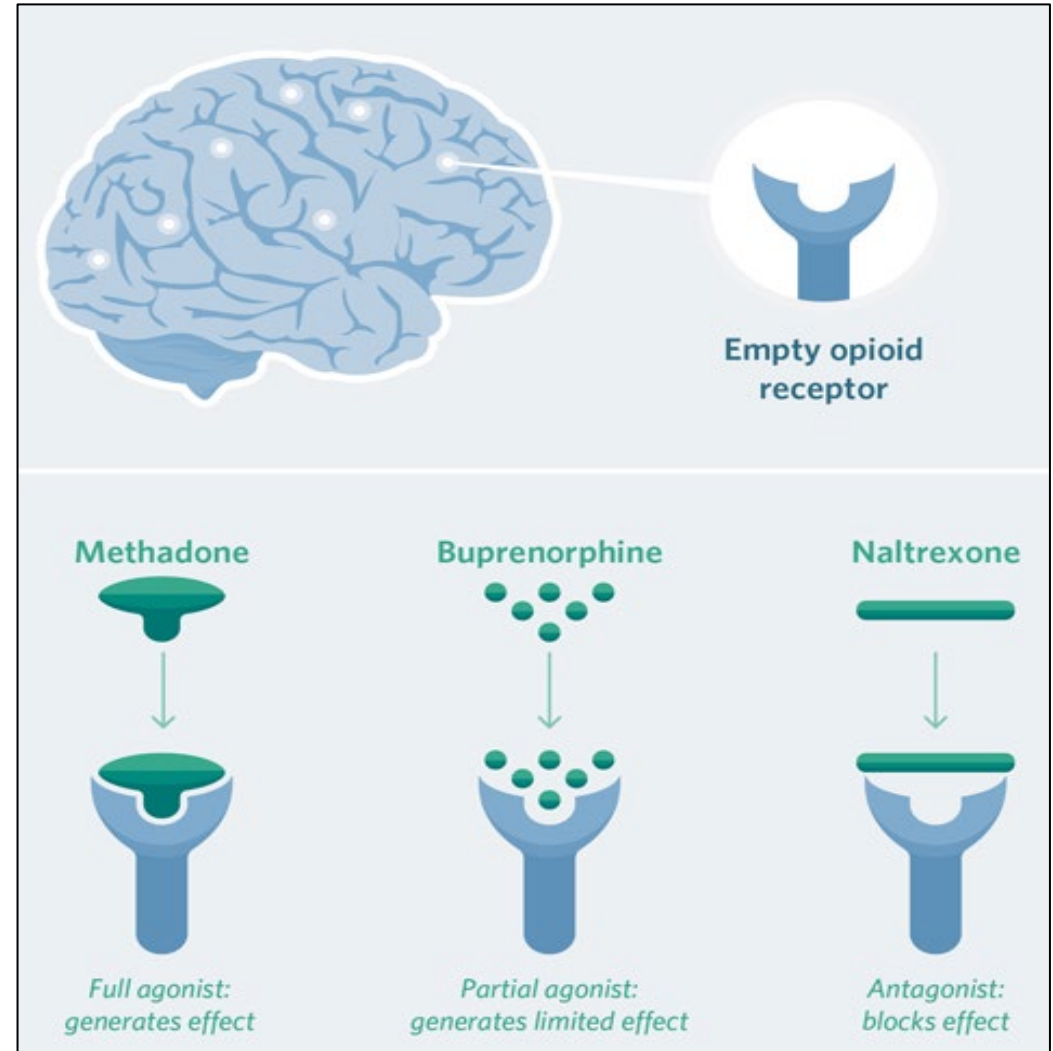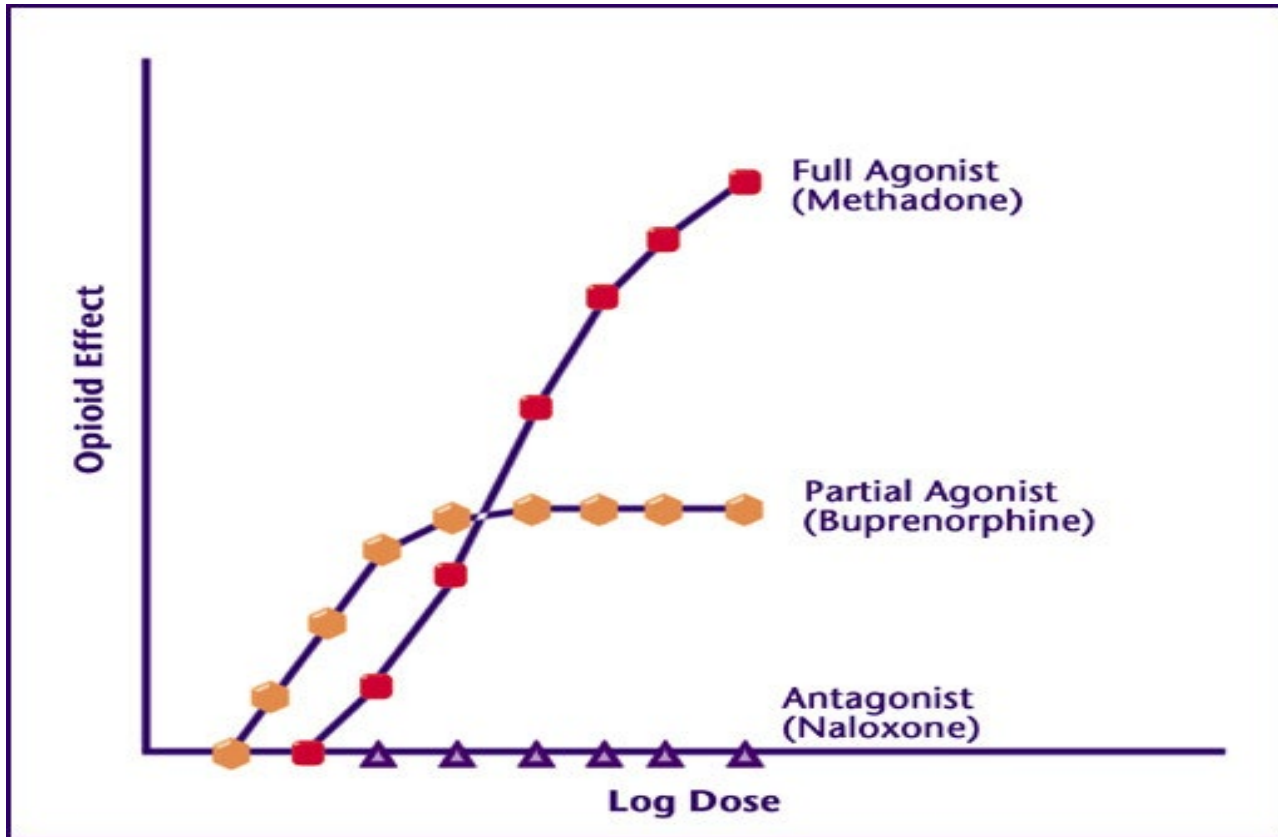- Improve mood and cognition
- Reduce craving

Addiction is a chronic relapsing disorder
Multiple treatments are usually required before abstinence is achieved

Opioid Detoxification: A Prescription for Failure

- While detox sounds good, less than 2 in 100 successfully achieve drug free status (Day et al., 2005)
  - Most don't consider this treatment
  - Psychosocial strategies are weak (Wild TC et al., *DAD:* 2021)
- Newly detoxified individuals are extremely vulnerable to relapse. The vast majority fail to remain drug-free.
- Medication for opioid use disorder should be the first-line treatment for heroin addiction.

Medication for OUD (MOUD)

Opioid Effect vs. Log Dose:
- Full Agonist (Methadone)
- Partial Agonist (Buprenorphine)
- Antagonist (Naloxone)

Empty opioid receptor

Methadone — Full agonist: generates effect

Buprenorphine — Partial agonist: generates limited effect

Naltrexone — Antagonist: blocks effect

A full description of these charts can be found at the end of this presentation after the Evaluation slide under the title: Slide 44 – Medication for OUD

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MOUD Retention- NOT!

Time to medication discontinuation among individuals treated for opioid use disorder in US

Morgan et al., *J. Subst. Abuse Treat.* 2018. *85*:90-96.

UCLA
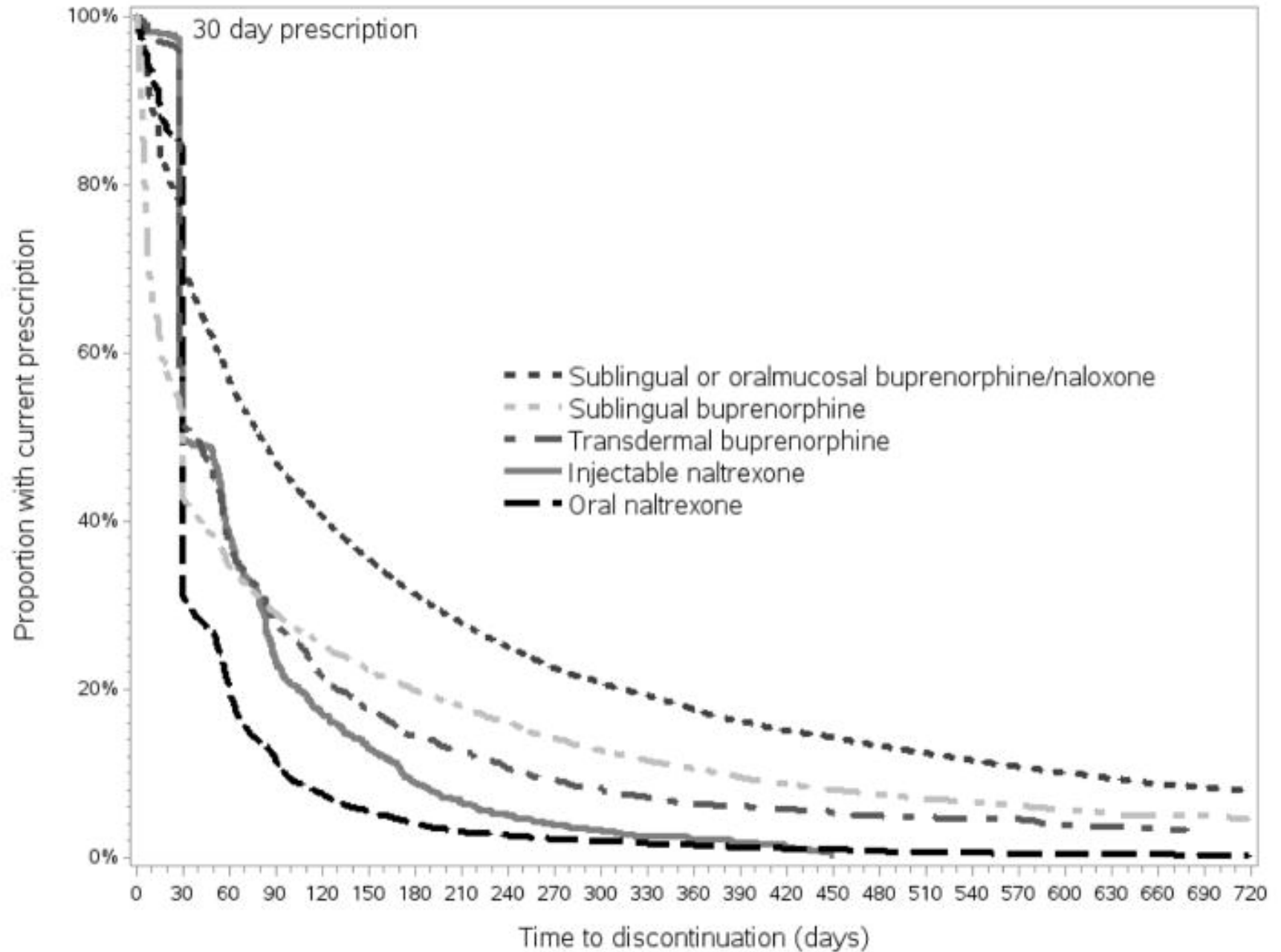
Alcohol Medications

- *Disulfiram* (Antabuse) – inhibits alcohol dehydrogenase, causing toxic reaction

- *Naltrexone* (ReVia) – opioid antagonist thought to block alcohol highs

- *Naltrexone* (Vivitrol) – depot opioid antagonist

- *Acamprosate* (Campral) – calcium channel blocker, glutamate antagonist, unknown mechanism

Alcohol Behavioral Therapies

- 12-Steps is the most common social group

  - Highest effectiveness with saturation in every community

- Motivational Interviewing – 4 brief sessions over 2 months

- Cognitive Behavioral Therapy – weekly meetings with therapist over several weeks/months

- Treatments help 25%-40% to achieve sustained abstinence

- NO IN-DEPTH PSYCHOTHERAPY!!!!
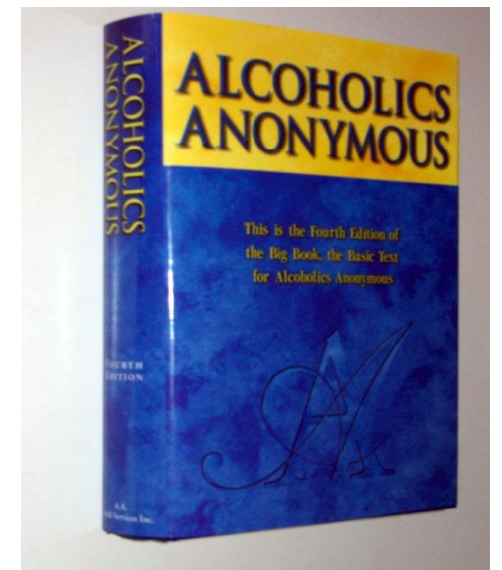
Pharmacotherapy for Stimulant Use in MSM: Mirtazapine 30 mg/day
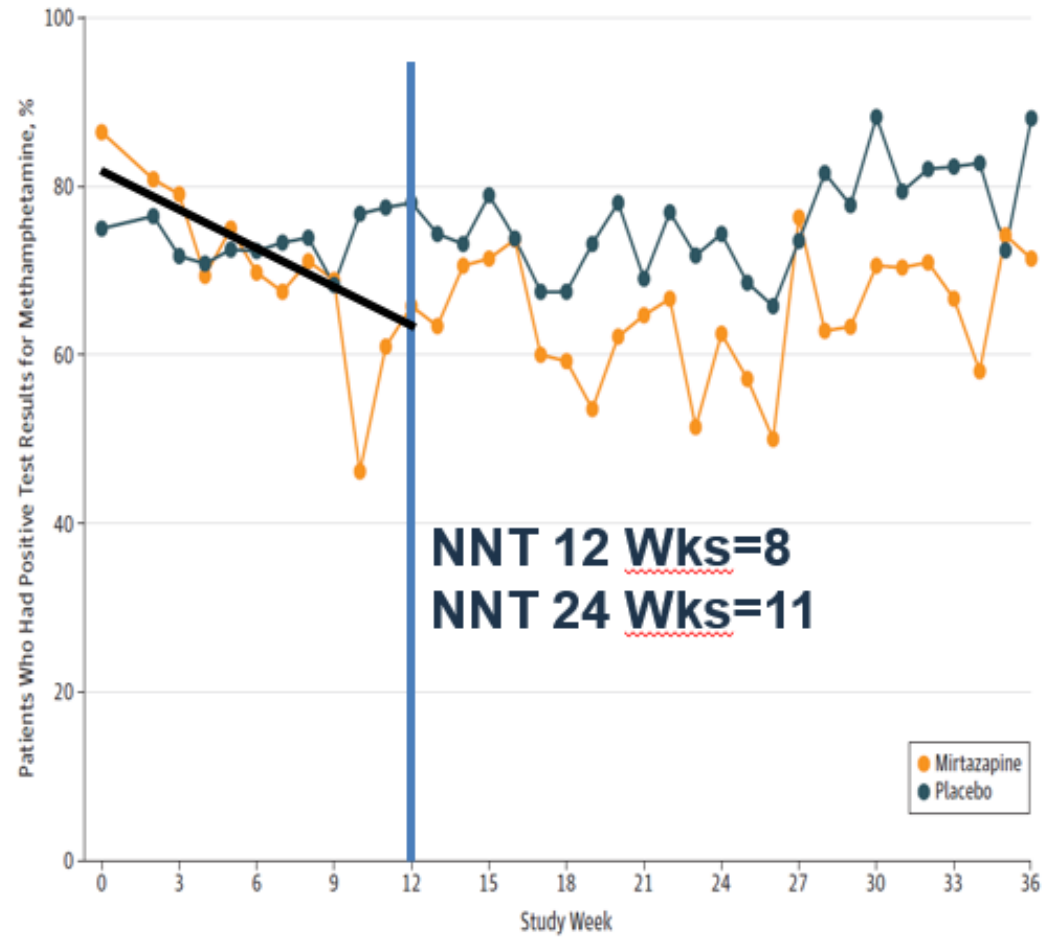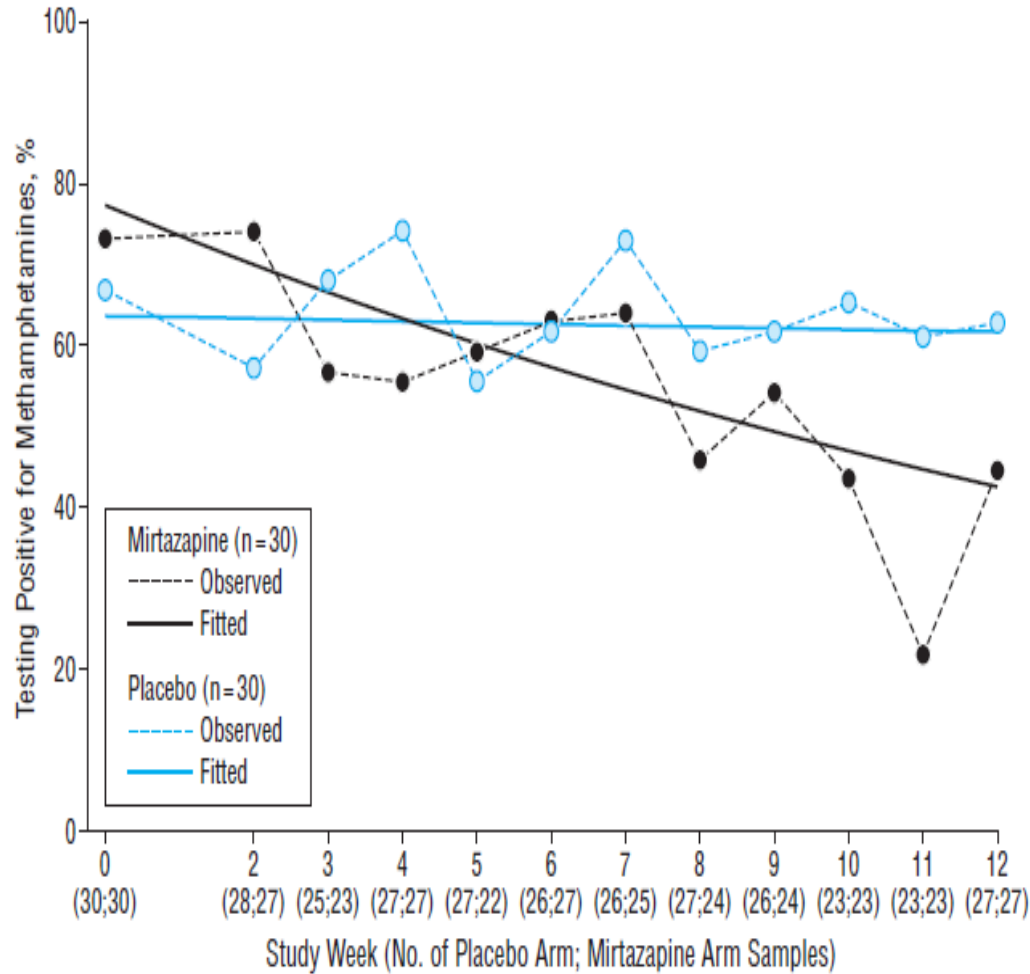
Colfax et al. *Archives Gen Psych,* 2011. *68*(11): 1168-1175

Coffin et al., doi:10.1001/jamapsychiatry.2019.3655

A full description of these charts can be found at the end of this presentation after the Evaluation slide under the title: Slide 48 – Pharmacotherapy for Stimulant Use in MSM
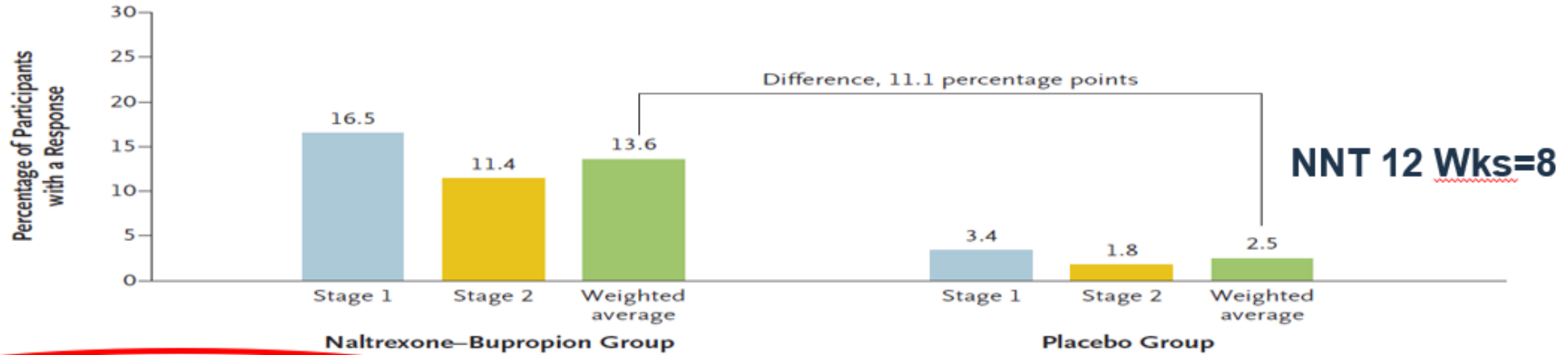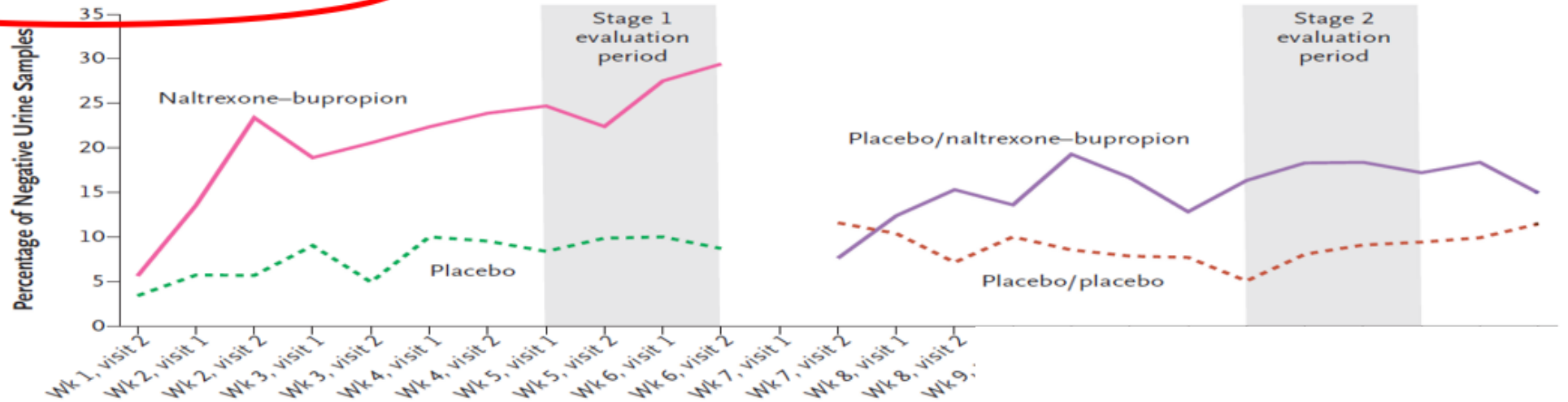
Naltrexone Inj + Bupropion
Travedi et al., 2021, NEJM

NNT 12 Wks=8

Contingency Management

- Definition and history

- Operant conditioning (Skinner, 1938)

- Initial concepts derived from work with delinquent boys (Yates, 1970)

- Early work in Methadone Maintenance Treatment clinics to encourage opioid abstinence (Stitzer et al, 1977)

- Application to cocaine dependence by Higgins' group (1993, 1994)

- Original voucher-based Contingency Management now has alternative "fishbowl method" (Petry 2000)
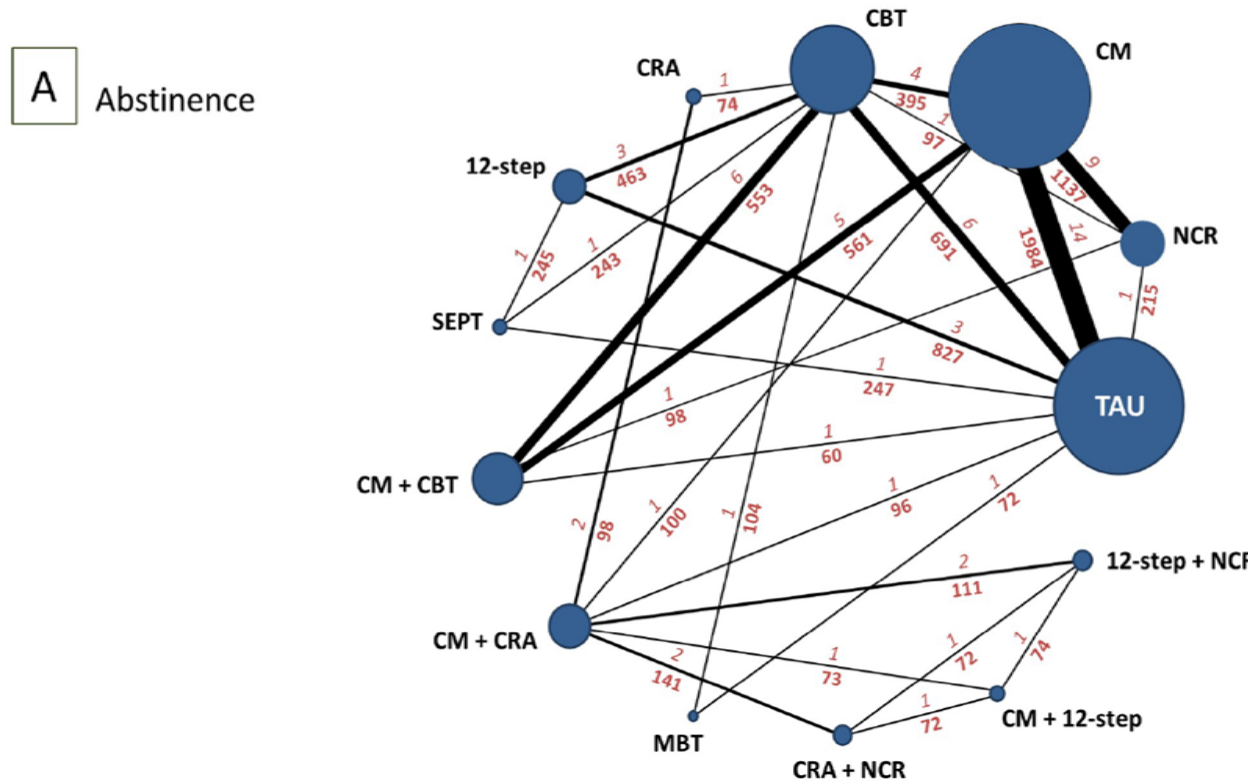
Meta Analyses: Contingency Management

- d=0.46 (Benishek et al., 2014, *109:*1426-1436) – Prize based only

- d=0.58 (Dutra et al., 2008, *Am J Psychiatry 165*:179-187)

- d=0.52 (Griffith et al., 2000, *Drug Alc Dep 58*:55-66)

- d=0.40 (Prendergast et al., 2006, *Addiction 101*:1546-1560)

If Contingency Management were a medication, it would be standard of care

Motivational Interviewing: Basic Assumptions

- People change thinking and behavior along a series of stages

- Individuals may enter treatment at different "stages of change"

- The natural change process can be changed using MI techniques

- MI engages individuals in longer term treatment and promotes specific behavior changes

- Confrontation of "denial" is counterproductive and may be harmful

Meta-analysis of Behavioral Therapies for Stimulant Use Disorder

PLOS | MEDICINE

Psychosocial interventions for cocaine and amphetamine addiction

A | Abstinence

Contingency management (CM) containing therapies and CBT had superior efficacy and acceptability compared to TAU at 12 weeks and at end of treatment.

A full description of this chart can be found at the end of this presentation after the
Evaluation slide under the title: Slide 53 – Behavioral Therapies

CHIPTS
Center for HIV Identification, Prevention
and Treatment Services

https://doi.org/10.1371/journal.pmed.1002715

Summary: Evidence-Based Treatments for SUD

- High quality evidence for using medications as a foundation of treatment
  - Medications essential for opioid use disorder
  - Effective medications available for alcohol; promising medications for methamphetamine
- Contingency Management is behavioral therapy with best efficacy
- 12-Steps work if patients can tolerate it
  - Start with this recommendation and increase intensity with lapse/relapse
- Remember chronic, life-long nature of addiction and its treatments

EHE Regional Approach
Alessandra Ross

Shift Away from Criminalization

- California is both:

  - A leader in policy change and
  - WAY behind other states in policies to decriminalize substance use and step-up treatment

- Biggest change agents:

  - Legislative change
  - Funding

Darker counties: earlier authorization of SSPs

Shift Away from Criminalization

- California is both:

  - A leader in policy change and
  - WAY behind other states in policies to decriminalize substance use and step-up treatment

- Biggest change agents:

  - Legislative change
  - Funding

Expansion of authorization of SSPs

Medication for Opioid Use Disorder Expansion through SAMHSA-funded State Opioid Response

- California adopted the Vermont "Hub and Spoke" model

- Made free naloxone available

- Working now on community distribution

Figure 1. Rate of Rx Opioid-Related Deaths per 100k Residents, by County, California, 2011-2013

- 0
- 0.1 to 3.0
- 3.1 to 6.0
- 6.1 to 10.0
- 10.1 and greater
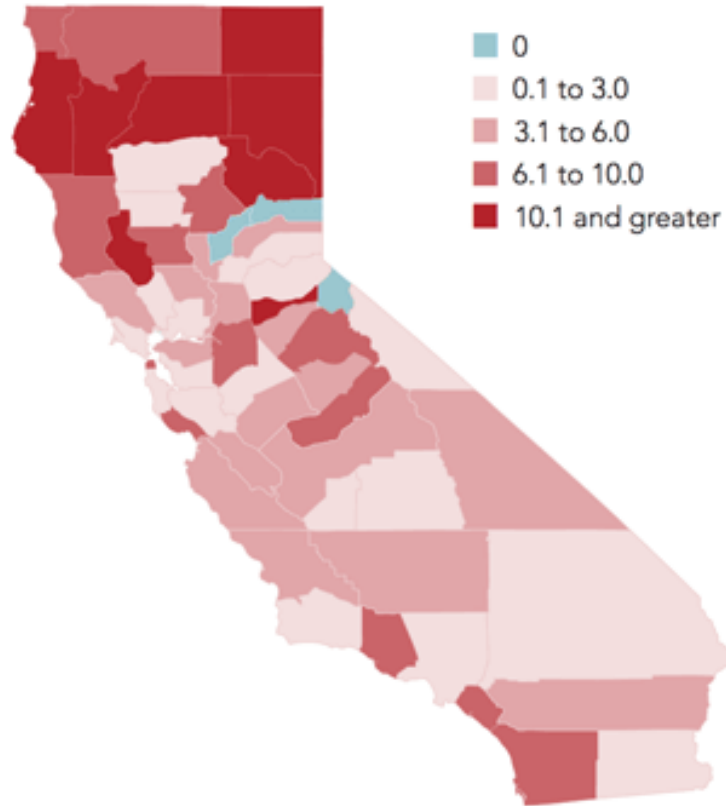
Source: California Department of Health Care Services.

Figure 2. Presence of Narcotic Treatment Programs, by County, California, 2014

- Yes
- No
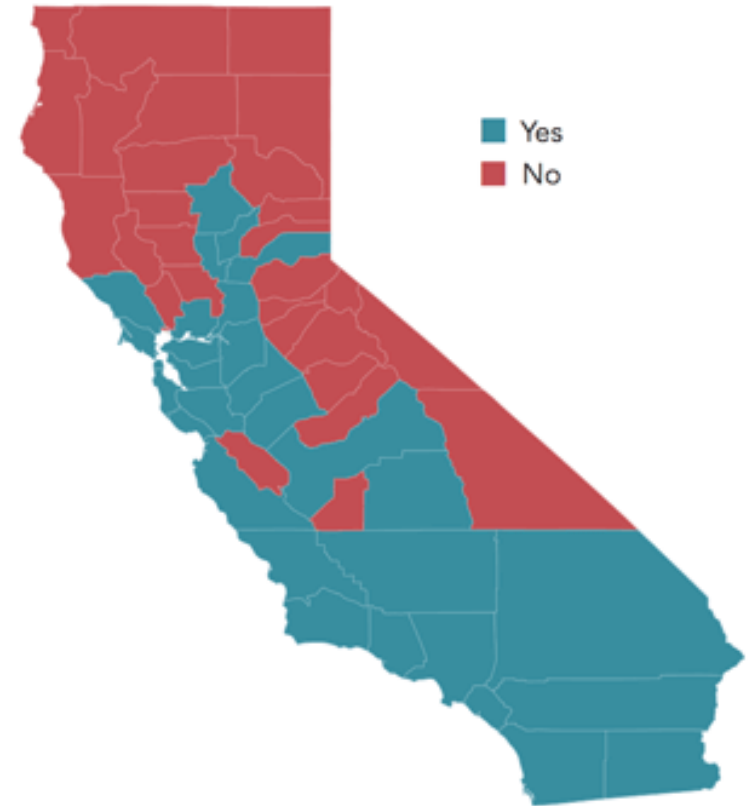
Source: California Department of Health Care Services.

A full description of this chart can be found at the end of this presentation after the Evaluation slide under the title: Slide 58 – Medication for Opioid Use

Plan and Collaborate

- EHE Learning Collaborative

- Build treatment and harm reduction into EtE plans and search for the gaps

- Share ideas and work together

Smaller but Meaningful Changes

- Scan for denial of services

- RWHAP funds may be used to support substance use disorder treatment

- CDC funds may be used to support syringe services programs

- Enlist pharmacies

- Seek TA and training

Addiction Training/ATTC Network
Renata Henry

SAMHSA's Technology Transfer Centers Program

TAP-in will work with TTC Network and other resources

to promote collaboration

and avoid duplication of services

SAMHSA's Technology Transfer Centers

- **Addiction Technology Transfer Centers**

- Mental Health Technology Transfer Centers
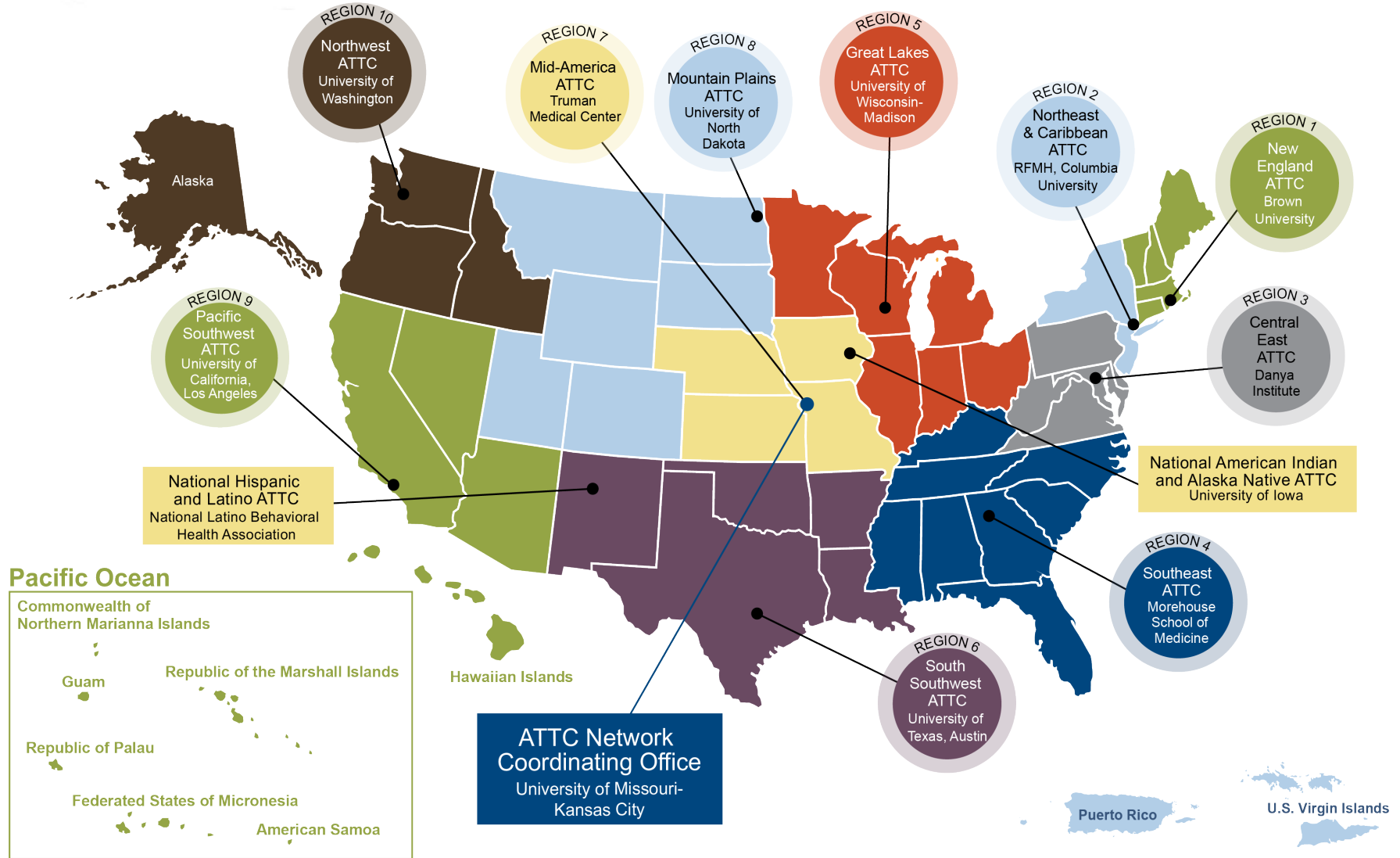
- Prevention Technology Transfer Centers

Goal: To accelerate the adoption and implementation of evidence-based practices by the behavioral health workforce.

Find Your Center: https://attcnetwork.org/centers/selection

SAMHSA's Addiction Technology Transfer Centers

The ATTC Network vision is to unify science, education and service to transform lives through evidence-based and promising treatment and recovery practices in a recovery-oriented system of care.

ATTC Addiction Technology Transfer Center Network
Funded by Substance Abuse and Mental Health Services Administration

U.S.-based ATTC Network

REGION 10
Northwest ATTC
University of Washington

REGION 7
Mid-America ATTC
Truman Medical Center

REGION 8
Mountain Plains ATTC
University of North Dakota

REGION 5
Great Lakes ATTC
University of Wisconsin-Madison

REGION 2
Northeast & Caribbean ATTC
RFMH, Columbia University

REGION 1
New England ATTC
Brown University

REGION 9
Pacific Southwest ATTC
University of California, Los Angeles

REGION 3
Central East ATTC
Danya Institute

National Hispanic and Latino ATTC
National Latino Behavioral Health Association

National American Indian and Alaska Native ATTC
University of Iowa

REGION 4
Southeast ATTC
Morehouse School of Medicine

Alaska

Pacific Ocean

Commonwealth of Northern Marianna Islands

Guam

Republic of the Marshall Islands

Republic of Palau

Federated States of Micronesia

American Samoa

Hawaiian Islands

REGION 6
South Southwest ATTC
University of Texas, Austin

ATTC Network Coordinating Office
University of Missouri-Kansas City

Puerto Rico

U.S. Virgin Islands

A full description of this chart can be found at the end of this presentation after the Evaluation slide under the title: Slide 65 – U.S.-based ATTC Network

TTC HIV Resources – Examples
Training Curricula/Slides, Webinars, Products

- Addressing Unhealthy Alcohol Use in HIV Clinical Care

- Heroin, Prescription Opioids, and HIV: What Clinicians Need to Know

- Cocaine, Methamphetamine, and HIV: What Clinicians Need to Know

https://attcnetwork.org/centers/global-attc/attc-hiv-resources

TTC HIV Resources – Examples

TAP-in TA/Training
Will Murphy, TAP-in/CAI Global

TAP-in Review of EHE Substance Use Plans

- Of the 47 jurisdictions who receive HRSA EHE funding, 13 jurisdictions identified people with SUD as a priority population in their EHE Plan
  - 7 jurisdictions specified People Who Inject Drugs
  - 1 jurisdiction specified individuals with co-occurring mental health and SUDs

  Access TA and Training by Email: TAP-in@caiglobal.org

Recap: How TAP-in Can Help

1. Help the jurisdiction clarify goals by considering any changes that may affect their EHE Plan (e.g., budget revisions, COVID-19 challenges, new partnerships).

2. Review strengths of proposal and how to leverage them for implementation.

3. Identify implementation approach and how TA can help.

4. Provide menu of TA options (e.g., training/coaching from SUD expert).

5. Create brief, focused implementation "playbooks" for national use.

Poll **Question**

Are services integrated in your jurisdiction?

Are medical and substance use treatment services well integrated in your jurisdiction?

1) Yes — 100%

2) Yes — 50-99%

3) Yes — less than 50%

4) No, not really

Poll Question

Which would be your first choice for training/TA?

Which would be your first choice for training/TA?

1) Motivational Interviewing for alcohol

2) Medication Assisted Treatment for Opioids

3) Contingency Management for Methamphetamine

4) Other – Add to Chat Box

Q & A

Conclusion, Next Steps and Evaluation

Email TAP-in to Request TA/Training

TAP-in@caiglobal.org

A Project of CAI

Please complete our evaluation
Link in chat

Charts, Graphs, and Table Descriptions

Slide 20 - Substance-focused interactive national survey

The first part of the STS4HIV Project was its substance-focused interactive real time delphi. This map of the United States lists the number of respondents by state ranging from 0 to 100:

0 = AK, ID, KS, KY, ME, MS, NE, NH, NM, ND, OK, SD, UT, VT, WV, WI, WY

1 = AR, HI, RI   2 = AL   3 = DE, MT   4 = IA   6 = GA   9 = MA   10 = NV, OR

11 = NC, SC   13 = MD, MN, WA   15 = MI, OH   16 = CO, VA   17 = NJ

18 = IL   21 = IN, TN   25 = AZ   32 = PA   35 = LA   37 = CT, FL   40 = MO

48 = NY   69 = TX   100 = CA

And Puerto Rico = 1

Slide 21 - Survey: Types of Participating Organizations and Individuals

Column chart of stick figure people making up the types of organizations:

76% are affiliated with HIV service organizations

17% are affiliated with planning councils or bodies

4% are affiliated with substance use treatment organizations

3% are affiliated with other types of organizations

Slide 25 - Perceived Prevalence Rate of Use Disorders

A table is shown with the following column headers:

Column 1 spans 2 rows: Use Disorder

Columns 2 thru 5 falls under the span header Region on the 1st row, and are titled Northeast, South, Midwest, and West.

Columns 6 thru 8 falls under the span header Stakeholder Perspective on the 1st row and are titled Clients with HIV, ASO Staff, and HPC Member.

Column 9 header is titled Overall.

Use disorders include alcohol, cannabis, cocaine, methamphetamine, and opioid.

Mean and standard error are shown for each disorder by the region, stakeholder perspective, and overall.

The Overall column is selected with a thick border around it.

According to two different sources, the prevalence rate of use disorders is calculated and the values for the Overall:

Alcohol: Mean = 41.9%, SE = -0.88

Cannabis: Mean = 42.3%, SE = -1.06

Cocaine: Mean = 28.1%, SE = -.91

Methamphetamine: Mean = 32.2%, SE = -.95

Opioid: Mean = 34.6%, SE = -.93

Slide 27 - The HIV Care Continuum Initiative

Column Chart titled The HIV Care Continuum Initiative; subtitle is Overall: of the 1.1 million Americans living with HIV, only 25 percent are virally suppressed.

X (horizontal axis) Not titled – 5 columns named - Diagnosed, Linked to Care, Retained in Care, Prescribed ART, Virally Suppressed.

Y (vertical axis) - Percent of all People with HIV in increments of 20 from 0 to 100

Diagnosed – 82%

Linked to Care – 66%

Retained in Care – 37%

Prescribed ART – 33%

Virally Suppressed – 25%

Charts, Graphs, and Table Descriptions – cont.

Slide 29 - Individual-Level Negative Impact Scores

A bar chart

X (horizontal axis) – the types of Use Disorders are listed: methamphetamine, opioid, cocaine, alcohol, and cannabis.

Y (vertical axis) title - Individual-level Negative Impact Score

4 Score increments from 0 to 24

Each type of disorder is broken down into a variety of categories including being linked to HIV care, being retained in HIV care, being prescribed HIV medications, being virally suppressed, having stable housing, having reliable mode of transportation, being employed, and having a strong social support system.

For methamphetamine –
- Being linked to HIV care: 2.35
- Being retained to HIV care: 2.53
- Being prescribed HIV care: 2.08
- Being virally suppressed: 2.51
- Having stable housing: 2.57
- Having reliable mode of transportation: 2.26
- Being employed: 2.62
- Having a strong social support system: 2.47

For opioid
- Being linked to HIV care: 2.15
- Being retained to HIV care: 2.26
- Being prescribed HIV care: 1.85
- Being virally suppressed: 2.23
- Having stable housing: 2.36
- Having reliable mode of transportation: 2.03
- Being employed: 2.47
- Having a strong social support system: 2.22

For cocaine
- Being linked to HIV care: 2.02
- Being retained to HIV care: 2.10
- Being prescribed HIV care: 1.66
- Being virally suppressed: 2.07
- Having stable housing: 2.18
- Having reliable mode of transportation: 1.88
- Being employed: 2.26
- Having a strong social support system: 2.02

For alcohol
- Being linked to HIV care: 2.03
- Being retained to HIV care: 2.06
- Being prescribed HIV care: 1.59
- Being virally suppressed: 1.97
- Having stable housing: 2.11
- Having reliable mode of transportation: 1.94
- Being employed: 2.20
- Having a strong social support system: 2.02

For cannabis
- Being linked to HIV care: 1.01
- Being retained to HIV care: 1.03
- Being prescribed HIV care: 0.78
- Being virally suppressed: 0.92
- Having stable housing: 1.09
- Having reliable mode of transportation: 0.96
- Being employed: 1.41
- Having a strong social support system: 0.91

Charts, Graphs, and Table Descriptions – cont.

Slide 37 - Scope of the Problem: Drug Overdoses

A map of the United States
4 States showed no increases for the period. They are Idaho, Nevada, North Carolina, New Hampshire. Overall, there was a 21.3% increase for U.S.

SD: -21.10% change	AL: 1.40% change	MA: 3.10% change
NJ: 4.50% change	NH: 5.00% change	HI: 5.70% change
ID: 6.80% change	UT: 7.40% change	MT: 9.20% change
MI: 14.10% change	MD: 15.00% change	DE: 15.80% change
KS: 17.70% change	OK: 19.60% change	OH: 20.40% change
PA: 20.70% change	MO: 22.10% change	NV: 22.30% change
WI: 26.50% change	NM: 27.30% change	AK: 28.30% change
ND: 28.90% change	OR: 30.00% change	NY: 30.30% change
ME: 31.10% change	GA: 31.40% change	IL: 32.00% change
IN: 32.10% change	TX: 32.70% change	NC: 33.40% change
WA: 34.70% change	NE: 35.10% change	MN: 35.50% change
AZ: 36.50% change	FL: 37.70% change	NYC: 37.80% change
AR: 39.10% change	MS: 40.30% change	CO: 41.90% change
TN: 42.20% change	VA: 43.20% change	VT: 43.50% change
CA: 43.90% change	LA: 44.60% change	WV: 45.20% change
SC: 47.40% change	DC: 53.20% change	KY: 55.20% change
WY: 69.20% change		

Slide 38 – The Perfect Storm

A map of Indiana titled Rates of Persons Living with an HIV Diagnosis by County, Indiana 2014.
All counties are shown in a variety of different colors representing the number of cases within each county. They are listed below the map: 0-50, 51-60, 61-80, 81-90, 91-120, 121-150, 151-190, 191-250, 251-380, and 381+. Indianapolis and Austin are circled. Indianapolis shows a rate of 381+ persons living with an HIV diagnosis, while Austin shows a rate of 191-250.

Slide 39 – Surveillance Findings, 2016

Scatter chart shows HIV status, connection type (syringe sharing, sexual only), and social contacts. Chart shows the sexual (dotted line) and syringe sharing (solid line) links between cases of HIV+ and HIV-. Most of these infections were with people sharing injection drug equipment – not having sex. There are only a handful of cases where HIV is via sex. Demonstrates importance of surveillance.

Charts, Graphs, and Table Descriptions – cont.

Slide 44 – Medication for OUD

Line chart
X (horizontal axis) - log dose
Y (vertical axis) - opioid effect
Three lines are graphed; The first line is the full agonist (methadone) and the second line is the partial agonist (buprenorphine) and the third line is antagonist (naloxone)

- Full agonist (methadone) line shows an increased opioid effect as log dose increased
- Partial agonist (buprenorphine) shows a sharp increase and then levels out
- Antagonist (naloxone) remains in line with the x-axis

The graphic on the right shows how the medications "fit" with the opioid receptor to act as a full, partial or antagonist. It shows a brain with an empty receptor on the top and the bottom shows methadone with an arrow pointing to a receptor labeled full agonist generates effect. To the right is buprenorphine with arrow pointing to a receptor labeled partial agonist generates limited effect. To the right of that is naltrexone with an arrow pointing to a receptor labeled antagonist blocks effect.

Slide 48 – Pharmacotherapy for Stimulant Use in MSM

2 line charts
Trials show efficacy of mirtazapine for reducing meth use in MSM.
Graph on the left:
X-Axis: Study Week (No. of Placebo Arm; Mirtazapine Arm Samples)
Y-Axis: Testing Positive For Methamphetamine
X-Axis ranges from 0 to 12 in increments of 1
Y-Axis ranges from 0 to 100 in increments of 20
Key shows Mirtazapine (n=30) with Observed as a dotted line and Fitted a solid line and Placebo (n=30) with Observed as a dotted line and Fitted as a solid line
The Mirtazapine line shows a slight negative slope
The placebo line shows a slope of 0

Graph on the right:
X-axis: Study week in increments of 3
Y-axis: Patients who had positive test results for methamphetamine % in increments of 20
The key shows mirtazapine and placebo
There is a vertical line running through study week 12 with the text NNT 12 weeks = 8
NNT 24 weeks = 11

Slide 49 – Naltrexone Inj + Bupropion

A report in New England Journal of Medicine shows effect of Naltrexone Injection + bupropion (450mg) combination therapy on methamphetamine use.
The top bar chart:
X-axis: Naltrexone-Bupropion Group and Placebo group; including stage 1, stage 2, weighted average for each group.
Y-axis: Percentage of Participants with a Response, from 0 to 30 in increments of 5
To the right of the graph is the text: NNT 12 weeks = 8
The difference between the two weighted averages is illustrated with a line that states: difference, 11.1 percentage points

The bottom line chart:
X-axis: Weeks 1 to 16, in increments of one
Y-axis: percentage of negative urine samples from 0 to 35 in increments of 5
Line chart displays four lines. One for naltrexone-bupropion, one placebo, one placebo/naltrexone-bupropion, one placebo/placebo

Charts, Graphs, and Table Descriptions – cont.

Slide 53 – Behavioral Therapies

Psychosocial interventions for cocaine and amphetamine addiction
Based on a meta-analysis, the figure plots the network of eligible direct comparisons for abstinence at the end of treatment (46 trials). The width of the lines is proportional to the number of trials comparing every pair of treatments, and the size of every node is proportional to the number of randomized participants. The numbers above each connection relate to the numbers of trials and the numbers below each connection relate to the number of patients for each direct comparison. 12-step, 12-step program; CBT, cognitive behavioral therapy; CM, contingency management; CRA, community reinforcement approach; MBT, meditation-based treatments; NCR, non-contingent rewards; SEPT, supportive-expressive psychodynamic therapy; TAU, treatment as usual. Contingency management (CM) is most effective treatment (larger circles are shown on chart to represent). Treatment As Usual (TAU) is also pretty good – as is Cognitive Behavioral Therapy (CBT) and other iterations of CM.

Slide 58 – Medication for Opioid Use
Two maps of California
The map on the left is titled Rate of Rx Opioid-related Deaths per 100K residents, by county, California 2011-2013
The options for each county are 0, 0.1-3.0, 3.1-6.0, 6.1-10.0, 10.1 and greater
Lighter colors indicate lower numbers whereas deeper/darker colors indicate higher numbers.

The map on the right is titled Presence of Narcotic Treatment Programs by county, California, 2014
The options for each county are yes or no
In figure 2: nearly the entire southern portion of California is labeled yes for the presence of narcotic treatment programs while the northern part is mostly labeled no for the presence of narcotic treatment programs.

Charts, Graphs, and Table Descriptions – cont.

Slide 65 – U.S.-based ATTC Network

Map uses lines to point to various Addiction Technology Transfer Centers across the United States

Circles with a line connected to each state exist to show variety of regions across U.S.

- Region 1: New England ATTC Brown University
- Region 2: Northeast & Caribbean ATTC RFMH, Columbia University
- Region 3: Central East ATTC Danya Institute
- Region 4: Southeast ATTC Morehouse School of Medicine
- Region 5: Great Lakes ATTC University of Wisconsin-Madison
- Region 6: South Southwest ATTC University of Texas, Austin
- Region 7: Mid-American ATTC Truman Medical Center
- Region 8: Mountain Plains ATTC University of North Dakota
- Region 9: Pacific Southwest ATTC University of California Los Angeles
- Region 10: Northwest ATTC University of Washington

In one rectangle: ATTC Network Coordinating Office is located in University of Missouri Kansas City

In another rectangle: National Hispanic and Latino ATTC National Latino Behavioral Health Association is connected with a line to New Mexico.

The left mini map displays the Pacific Ocean and the following islands:

- American Samoa
- Federated States of Micronesia
- Republic of Palau
- Republic of the Marshall Islands
- Guam
- Commonwealth of North Marianna Islands

In the bottom right corner, Puerto Rico and the U.S. Virgin Islands are displayed.